

PCB INC - KANSAS

Superfund Site

KANSAS CITY, KANSAS

REMOVAL ADMINISTRATIVE RECORD

VOLUME II

JUNE 2000

REGION VII
SUPERFUND DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

PCB, Inc.
Capacitor Process info '83

#105101

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CONFIDENTIAL

CLOSURE PLAN FOR
PCB TREATMENT, INC.
CAPACITOR PROCESS

DECLASSIFIED
10-22-86
ASP

PCB TREATMENT, INC.
2100 Wyandotte
Kansas City, MO. 64108

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CLOSURE PLAN FOR
PCB TREATMENT, INC.
CAPACITOR PROCESS

DECLASSIFIED
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PCB TREATMENT, INC.
2100 Wyandotte
Kansas City, MO. 64108

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CLOSURE PLAN FOR CAPACITOR PROCESSING SYSTEM

General Facility Information

PCB Treatments' Annex III facility and capacitor processing system is located at 2100 Wyandotte, Kansas City, Missouri. 66,500 square feet of this building (the 3rd, 6th, and 7th floor) is used for storage. The storage capacity for all three floors is approximately 3,750 55-gallon drums. The capacitor processing line is located in a separate set of rooms on the 3rd floor. The center dock on the first floor is used for receiving, staging and shipping of PCB items.

I. Outline of Facility Conditions

A. General Information

1. Size of Facility is 66,500 sq.ft.
2. Storage of capacitors is done predominately in 55-gallon open-top drums with secure lids - a few non-leakers are on pallets or in crates.
3. Storage of capacitor components which are not cleaned during processing, are always done in 55-gallon open-top drums with secure lids.
4. Capacitor components will consist of the fluid, cores, and insulators found in or on capacitors which have been processed.

B. Maximum storage will not exceed at any one time 3,750 drums of capacitors and capacitor components.

C. Schedule of Final Closure

1. Final date waste will be accepted is October 1, 1988.
2. Final date of on-site processing will be March 30, 1989.
3. Final date that capacitor components and contaminated solvents, clean-up material and equipment will be removed is March 30, 1989.
4. Final date for off-site disposal will be March 30, 1989.
5. The capacitor portion of this facility will be completely closed out by March 30, 1989 or one year after the final capacitor is received.

II. Final Disposal

- A. All capacitor components not cleaned to EPA specifications will be incinerated at an EPA-approved incineration site.
- B. All contaminated packing and clean-up material will be either incinerated or buried in an EPA-approved disposal site.
- C. Metal pieces of the processing line and metal processing equipment will be decontaminated by disassembling and processing through our vapor degreasers.
- D. Non-metal sections of the processing line will be cleaned with solvent and buried as PCB contaminated solid wastes.
- E. Transportation of PCB material to disposal site will be done in company owned trucks by company trained drivers.

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III. Systematic Closure

- A. PCB Treatment personnel will conduct all on-site closure processes.
- B. Off-site disposal will be handled through contracted PCB landfills and incinerators.

IV. Cost Estimate of Closure under Extreme Conditions

- A. Closure handled through outside EPA-approved incinerators and landfills.

1. 3,750 drs. of capacitors, components and solid waste
300 lb. drum average
1,125,000 lbs. of material
.40 cents per pound for incineration
\$450,000

2. 25 T/L on PCB INC. OF MO. trucks to incinerator
\$ 1,200
25
\$30,000 Transportation

- B. Closure handled through PCB Treatment, Inc. capacitor process and by products sent to EPA-approved incinerators and landfills.

1. 3,750 drs. of capacitors
300 lb drum average
1,125,000 lbs.
.10 PCB process cost per lb.
\$112,500 Total PCB process cost

337,500 lbs. capacitor process by products
.40 lbs. for incineration per lb.
\$135,000

2. \$1,200 2T/L
8
\$9,600 Transportation

V. Financial Mechanism for Closure

- A. The cash flow generated from a completely filled storage facility would pay for closure and the money would be on hand for the costs of disposal.
- B. PCB Treatment has at present a \$20,000 Certificate of Deposit as protection for excess costs of closure.

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LABORATORY QUALITY ASSURANCE

PCB TREATMENT, INC.
2100 Wyandotte
Kansas City, MO. 64108

PCB TREATMENT, INC.
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LABORATORY QUALITY ASSURANCE

I. Introduction:

In order to assure the accuracy of analytical results which are generated from the laboratory, a series of standard operating procedures has been developed and implemented. These operational procedures are applicable to all laboratory personnel.

II. Responsibility:

A. Training

The Laboratory Director is responsible for training all staff involved in collection of samples for analysis, performing analytical tests and documentation of results. This training shall be documented in the Laboratory Directors' file and a copy of documentation placed in the employee's file.

B. Enforcement

The Laboratory Director is responsible for enforcement of all standard operating procedures and proper documentation. Verification of compliance is achieved via random inspection of analytical records and results. Documentation of inspections are filled in inspection records file.

III. Remedial Action:

Problems arising during analysis or documentation of analysis shall be referred to the Laboratory Director. The Laboratory Director shall either correct the problem or refer it to the Operations Manager for correction.

IV. Instrument Operation:

It is the policy of this laboratory to maintain and operate instruments involved in the generation of analytical data in a manner consistent with manufacturer's specifications. The proper use and maintenance of analytical equipment is delineated in the service/operation manual supplied by the manufacturer. Copies of the manuals are maintained in the laboratory for reference.

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V. Documentation:

1. Raw data shall be labeled as follows:
 - a. sample types (eg. capacitor test, oil sample, etc.)
 - b. manifest number
 - c. date analysed
 - d. analyst
2. Summary data including all pertinent information from the chromatograms, dilution factors, and analytical results shall be recorded in the laboratory log book.
3. Storage/Retention Time
 - a. Raw data shall be stored in the proper file and retained for a period of five calendar years.
 - b. Summary data (laboratory log book) shall be stored indefinitely in the laboratory files.

VI. Sampling and Analysis

Sampling location will be after the 2nd vapor degreasing process. Location on the capacitor to take the sample will be the inside-side wall or end and the normal swab method will be used following all procedures for this type of test.

Chemical Analysis

In order to assure that the maximum permissible PCB contamination level for capacitors of 0.01 mg/100cm² is achieved, it is necessary that chemical analysis be performed at regular intervals. These chemical analysis are conducted by a trained laboratory technician under the direction and guidance of a degreed chemist. The following is illustrative of the method of analysis.

A. Sample Collection and Preparation

Sample collection is performed by the laboratory technician after donning appropriate safety clothing. A representative area of 100cm² is wiped with a clean filter paper (Whatman #54 or equivalent), and the filter paper extracted with 10ml aliquots of pesticide grade isooctane.

B. Analysis

The sample, prepared as directed, is analyzed via gas chromatography (Schimadzu, GC-Mini2) employing electron capture detection and a digital integrator as recommended by the protocol entitled, (The Analysis of Polychlorinated Biphenyls in Transformer Fluid and Waster Oils", issued June 24, 1980

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by the Environmental Monitoring and Support Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Cincinnati, Ohio.

The quantification of PCB's is achieved using commercial mixtures of PCB's as standards. The results are calculated and reported on the basis of mg/100cm². A permanent record of the chromatograms is maintained with appropriate documentation.

C. Analytical Results

The quantification of PCB levels is achieved using commercial mixtures of PCB's as standards. The concentration of PCB contamination on the capacitor is determined by reference to the standard curve generated as described in section VI B above.

The analytical results are expressed in units of ppm (microgram/gram). This result if converted to milligrams by the following equations.

By definition 1ppm = 1 microgram/gram
and 1 milligram = 1000 micrograms
therefore: (1 microgram) (1 milligram divided by 1000 micrograms) = .001 milligrams. Since the area sampled is 100cm², the results take the final units of milligrams/100 sq. centimeters.

D. Documentation of Analytical Results

Samples analysed by gas chromatography shall be labeled to clearly indicate identity of the original sample. Chromatograms are identified by a GC number. This number is recorded in a daily log book which contains the sample identified with the sample Batch number and manifest number and cleaning cycle, if necessary. The date and time of each analysis is also recorded.

The original chromatograms are filed by GC identification number. A copy of the results is returned to the capacitor room supervisor for his file. These files are maintained for five years as a permanent record. A suitable cross-reference system correlating laboratory results and manifest number shall be instituted and maintained.

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VII. Safety Features

A. Trained PCB Treatment, Inc., Operator's Dress - Protective Clothing

1. Respirators - approved by MSHA or OSHA
Respirators used when concentration of PCB is greater than 1.0 ug/cu m or EMERGENCY.
2. Impervious clothing and gloves - disposable boots
 - a. Location - directly inside door.
 - b. Protective clothing to be worn when handling or working around any PCB.
3. Face shields, chemical safety glasses or safety glasses with side shields.
 - a. Located with other protective clothing as stated above
 - b. Eye protection should be worn during any operation in which PCB's are present. If liquid or solid PCB's contact the eyes, the eyes shall be irrigated immediately with large quantities of water and then examined by a physician.

B. Safety Check

1. Eye Wash - located on wall, eye level just inside door.
2. First Aid Kits - located same areas as eye wash.
3. Fire Extinguishers - located with easy accessibility.
4. Sand Bucket - located with easy accessibility.

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Laboratory Quality Control

A. Instrumentation

All instrumentation used to generate analytical results shall be tested to assure proper function. Standard operating procedures for analytical balances, and gas chromatographs shall be developed and maintenance records shall be permanently filed in compliance with applicable Good Laboratory Practice (G.L.P.) guidelines.

B. Accuracy of Chromatographic Data

Accuracy of analytical data is primarily dependent on parameters such as instrument operation, standard preparation, and human error.

1. Instrumentation

This laboratory is currently equipped with a Shimadzu GC Mini2 gas chromatograph. However, this instrument will be superceded by the acquisition of a Varian 3700 chromatograph equipped with a Linear Electron Capture Detector, auto samples and digital electronic integrator. Detector Linearity and auto sampler performance shall be checked quarterly. The instrument shall be calibrated daily by analysis of calibration standards from standard stock solutions which approximate the unknown sample in composition and in concentration. The calibration curve generated must be checked daily using a laboratory control standard. Accuracy and precision of this L.S.C. shall not exceed 15% of the known value.

An accuracy statement is generated by quadruplicate analysis of a concentration. The accuracy is defined as R/S , where R is the known concentration and S is the standard deviation.

An EMSL--Quality control sample shall be analyzed quarterly. The results should agree within 15% of the true value.

Capacitors selected for analysis shall be tested in duplicate at least twice monthly. One of these tests will be sent to an independent laboratory such as General Testing Laboratories. The remaining test shall be tested in our laboratories. These results shall agree within statistical limitations.

Other quality control programs may be developed and maintained as necessary

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1 LB 02 1984

Mr. Jack Van Gundy
PCB Treatment, Incorporated
2106 Wyandotte
Kansas City, Missouri 64108

Dear Mr. Van Gundy:

Enclosed is an appendix from a draft report by a U.S. Environmental Protection Agency (EPA) contractor. You may find the information in this report helpful in the operation of your PCB capacitor/transformer treatment facility.

Topics included in this report are:

1. Design and maintenance of a facility;
2. Equipment and conduct of facility personnel;
3. Monitoring and recordkeeping; and
4. Emergency response.

If you have any questions, or need more information relative to this report, please call Mr. Stephen P. Busch of my staff at (816) 374-6531.

Sincerely yours,

Lyndell L. Harrington, P.E.
Chief, Permits Section
Waste Management Branch
Air and Waste Management Division

Enclosure

ARWM:WMBR:PMTS:JSnyder:lmh:x6531:1-31-84:Disk 22/12

PMTS
Snyder

PMTS
Busch

PMS
Harrington

WMBR
Morby

JSnyder
2/1/84

PCB Capacitor Disposal Approval

Director, Air and Waste Management Division

Morris Kay
Regional Administrator

P.C.B. Treatment, Inc. was granted interim approval to process PCB capacitors on July 5, 1983. The company has complied with the terms and conditions of the interim approval. I, therefore, recommend you grant final approval to P.C.B. Treatment, Inc.

David A. Wagoner
Director, Air and Waste Management Division

Attachment

ARWM/WMBR-PMTS:SBusch:lmh:x6531:12-30-83:1/3/84:Disk N29

PMTS
Busch

PMTS
Harrington

LH
1-10-84

WMBR
Morby

1/11

ARWM
Spratlin

ARWM
Wagoner

JAN 18 1984

Mr. Jack Van Gundy, President
P.C.B. Treatment, Incorporated
2100 Wyandotte
Kansas City, Missouri 64108

Dear Mr. Van Gundy:

I hereby grant approval to P.C.B. Treatment, Incorporated to process polychlorinated biphenyl (PCB) capacitors, in the manner described to the Environmental Protection Agency (EPA), Region VII office, in order to reduce the volume of material subject to PCB disposal requirements. This approval, which is subject to the attached conditions, is effective only for the P.C.B. Treatment, Incorporated facility at 2100 Wyandotte, Kansas City, Missouri 64108, and is granted pursuant to Section 6(e) of the Toxic Substances Control Act (TSCA) and 40 CFR 761.60(e). This approval is based upon the ability of the processing method employed to reduce the volume of material subject to PCB disposal requirements. Only the processed materials with non-detectable amounts of PCB will be considered non-PCB materials. All materials which contain detectable quantities of PCB shall be considered PCBs or PCB items and shall be managed accordingly. It is our understanding that there will be no emission of PCBs to the air or water (surface or groundwater). This approval is based on the Agency's present belief that the process described to EPA, Region VII, when properly managed, does not present a risk of injury to health or the environment and, within the confines of existing analytical capabilities, provides PCB destruction equivalent to an incinerator (40 CFR 761.70) or high efficiency boiler (40 CFR 761.60).

This approval shall be effective on February 1, 1984, and shall be effective for three (3) years, or until February 1, 1987. This approval may be withdrawn, or further conditions may be added to it at any time. Moreover, violation of any condition included as part of this approval (see attachment) may subject P.C.B. Treatment, Incorporated to enforcement action and/or termination of the approval.

If you have any questions or comments regarding these matters, please contact me. The member of my staff most familiar with this subject, Mr. Stephen Busch, Chemical Engineer, Permits Section (816/374-6531) can also provide additional information.

Sincerely yours,

Morris Kay
Regional Administrator

Enclosure

ARMM/WMBR-PMTS:SBusch:lmh:x6531:12/30/83:1/3/84:Disk N29

PMTS Busch	PMTS Harrington 1-10-84	WMBR MORRIS 1/16/84	TOPE Frye 1/16/84	ARMM Spratlin OK	ARMM Wagoner WAGONER	RGAD Kay MK 11/8
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
324 EAST ELEVENTH STREET
KANSAS CITY, MISSOURI 64106

JAN 18 1984

OFFICE OF
REGIONAL ADMINISTRATOR

Mr. Jack Van Gundy, President
P.C.B Treatment, Incorporated
2100 Wyandotte
Kansas City, Missouri 64108

Dear Mr. Van Gundy:

I hereby grant approval to P.C.B. Treatment, Incorporated to process polychlorinated biphenyl (PCB) capacitors, in the manner described to the Environmental Protection Agency (EPA), Region VII office, in order to reduce the volume of material subject to PCB disposal requirements. This approval, which is subject to the attached conditions, is effective only for the P.C.B. Treatment, Incorporated facility at 2100 Wyandotte, Kansas City, Missouri 64108, and is granted pursuant to Section 6(e) of the Toxic Substances Control Act (TSCA) and 40 CFR 761.60(e). This approval is based upon the ability of the processing method employed to reduce the volume of material subject to PCB disposal requirements. Only the processed materials with non-detectable amounts of PCB will be considered non-PCB materials. All materials which contain detectable quantities of PCB shall be considered PCBs or PCB items and shall be managed accordingly. It is our understanding that there will be no emission of PCBs to the air or water (surface or groundwater). This approval is based on the Agency's present belief that the process described to EPA, Region VII, when properly managed, does not present a risk of injury to health or the environment and, within the confines of existing analytical capabilities, provides PCB destruction equivalent to an incinerator (40 CFR 761.70) or high efficiency boiler (40 CFR 761.60).

This approval shall be effective on February 1, 1984, and shall be effective for three (3) years, or until February 1, 1987. This approval may be withdrawn, or further conditions may be added to it at any time. Moreover, violation of any condition included as part of this approval (see attachment) may subject P.C.B. Treatment, Incorporated to enforcement action and/or termination of the approval.

If you have any questions or comments regarding these matters, please contact me. The member of my staff most familiar with this subject, Mr. Stephen Busch, Chemical Engineer, Permits Section (816/374-6531) can also provide additional information.

Sincerely yours,

Morris Kay
Regional Administrator

Enclosure

Conditions of Approval

P.C.B. Treatment, Incorporated

1. P.C.B. Treatment, Inc. may disassemble or process PCB capacitors in order to reduce the volume of materials subject to U.S. Environmental Protection Agency (EPA) polychlorinated biphenyl (PCB) disposal requirements as described in the information on file at the EPA Region VII office. No modification to the system may be made without prior approval from the EPA Region VII office. Modification of the system without notification or prior approval of the modification will void this approval.

2. All components of the capacitor must have no detectable PCB residues or PCB concentration in order to be considered a non-PCB item. Analytical data shall be available to demonstrate the components treated do not contain PCBs. If analytical data are not available, components of the capacitors must be considered PCB items. For purposes of compliance, realistic detection limits for various types of material shall be considered as follows:

Solids (large regular surface area) - 0.01 mg/100 cm²
Solids (finely divided or irregular surface) - 0.2 mg/kg
Liquids (oils or solvents) - 2 mg/kg

3. All liquids used in the processing of capacitors or capacitor components must be considered PCB liquids unless demonstrated to contain less than 2 mg/kg PCB. Disposal of these liquids, which are considered PCB liquids, must take place at an EPA approved incineration facility (meeting the requirements of 40 CFR 761.70) or treated by an EPA approved method which is an alternate to incineration (approved under 40 CFR 761.60(e)).

4. All components of a capacitor which contain a detectable quantity of PCB as defined in item #2 above, shall be disposed of at an EPA approved incineration facility (meeting the requirements of 40 CFR 761.70) or treated by an EPA approved method, which is an alternate to incineration (approved under 40 CFR 761.60(e)).

5. Any cutting tool or other device used in the processing of capacitors must be operated in a manner to prevent heating of material which may result in the vaporization of PCBs and the subsequent uncontrolled entry of PCBs to the environment. There shall be no release of PCBs to the environment.

6. Ventilation of the work area, to adequately protect workers from any vapors that might be generated in the processing of the capacitors shall be provided. P.C.B. Treatment, Inc. must comply with all Federal, State and local health, safety and environmental requirements for this approval to be considered valid.
7. P.C.B. Treatment, Inc. must report any release to the environment of PCBs which occur as a result of capacitor processing activities.
8. Any injury or any illness which occurs as a result of the processing of capacitors or the handling of PCBs must be reported to the EPA Regional Office, PCB Coordinator at (816) 374-3036.
9. Any reports required by conditions 7 and 8 above are to be submitted by telephone to the EPA Regional Office by the next regular business day and followed in writing within five days to the EPA Regional Administrator, 324 East 11th Street, Kansas City, Missouri 64106, and to the Director of the Office of Toxic Substances, Office of Pesticides and Toxic Substances, 401 M Street, S.W., Washington, D.C. 20460.
10. P.C.B. Treatment, Inc. must develop and maintain the following records:
 - a. The name of the person or firm whose capacitor is being processed;
 - b. The manufacturer, rated capacity and identification number of the capacitor;
 - c. The date the capacitor is received and the date or dates processed;
 - d. The ultimate disposition of all components of the capacitor; this should include the nature and quantity of materials being disposed of, and the location, disposal method, and date of disposal; and
 - e. A copy of the gas chromatograph or data record from test conducted to demonstrate final PCB concentrations, as specified in paragraph 2, above.
11. P.C.B. Treatment, Inc. must review, and if necessary, modify the closure plan for terminating the PCB handling systems on an annual basis. Any closure modification must be submitted to EPA within thirty (30) days from the date of the modification. The closure plan shall include the decontamination or disposal of PCB contaminated equipment or process materials. A cost estimate for closure under worst possible conditions, shall be included with the closure plan. The intended financial mechanism for closure as outlined in the closure plan should also be included in this plan.

12. The quality assurance program shall be reviewed annually, and modified if necessary. Any modification shall be submitted to EPA within thirty (30) days from the date of the modification. P.C.B. Treatment, Inc. must insure this approved process is properly operated and maintained at all times.

13. USEPA reserves the right for its employees or agents to inspect P.C.B. Treatment, Inc. activities at any time.

14. The processing of a capacitor shall not be considered complete until all components of the capacitor are disposed of properly. Limitations and/or regulations which apply to capacitors shall also be considered applicable to capacitor components (e.g., in storage for disposal, disposal is not complete until all components are properly disposed of, thus storage is from the date of receipt, to the date the last components of the capacitor is disposed of).

15. Thirty (30) days prior to the expiration date of this approval P.C.B. Treatment, Inc. shall submit a summary of the information required under item #10 of these conditions of approval with a sample of the data management log or data sheet, to the Region VII, Waste Management Branch. With this information shall be a statement by a responsible company official, that the company has complied with all conditions of this approval and Federal PCB rules and regulations; or a statement which specifies that a certain condition of the approval or Federal PCB rule or regulation was not met and the corrective action taken to insure compliance.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE:

JAN 18 1984

SUBJECT: PCB Capacitor Disposal Approval

FROM: Director, Air and Waste Management Division

TO: Morris Kay
Regional Administrator

P.C.B. Treatment, Inc. was granted interim approval to process PCB capacitors on July 5, 1983. The company has complied with the terms and conditions of the interim approval. I, therefore, recommend you grant final approval to P.C.B. Treatment, Inc.

David
David A. Wagoner

Director, Air and Waste Management Division

Attachment

P.C.B., Inc. of Missouri

2100 WYANDOTTE
KANSAS CITY, MISSOURI 64104
816-271-3880

(Dom) 886 236-0254

December 29, 1983

EPA-ARWM/PMTS

DEC 29 1983

Mr. Morris Kay
Regional Administrator
Region VII
U.S. E. P. A.
324 East 11th Street
Kansas City, Missouri 64106

Region VII K.C., MO

ATTN: Mr. Steve Bush

Dear Mr. Bush:


On December 14, 1983, we sent our last load of capacitor cores and oil to our burn center, SCA Chemical Services, Chicago.

At that time, we had scheduled for incineration four tanker loads of oil and five loads of capacitor cores which would have completed destruction of all dated material, which needed to be destroyed by December 31, 1983.

Those loads were, at first, placed on hold and then later cancelled due to repairs required on the incinerator (see attached letter from SCA).

We therefore request from you a letter granting us an extension of 60 days in which to accomplish this destruction which would be suitable to send our clients, who are concerned about destruction requirements.

Sincerely,


Jack Van Gundy
President

JVG/te

DEC 27 1983

Mr. Jack Van Gundy
PCB Treatment, Inc.
2100 Wyandotte
Kansas City, Missouri 64108

Dear Mr. Van Gundy:

This letter is to inform you that we have received your August 18, 1983 and October 21, 1983, proposed modifications to your PCB capacitor processing line. We do not consider these modifications as substantial changes. As such, we do not feel the proposed changes will adversely affect your processing of PCB capacitors. You may proceed with implementation of these modifications.

You should be advised that all terms and conditions of the approval granted to PCB Treatment, Inc. on July 5, 1983, remain effective and unchanged. If you have any questions, please contact Stephen Busch or my staff at 374-6531.

Sincerely yours,

Morris Kay
Regional Administrator

ARWM/WMBR-PMTS:SBusch:lmh:x6531:11-25-83:Disk 4/5pg2

PMTS
Busch

Busch
11/24/83

PMTS
Harrington

LH
11/29/83

WMBR
Morby

Morby
11/29/83

ARWM
Spratlin

ARWM
Wagoner

Wagoner

RGAD
Kay

151 MK
12/27/83

PCB Treatment, Inc., Process Modification

Director, Air and Waste Management Division

Morris Kay
Regional Administrator

PCB Treatment, Inc. has proposed several modifications to their capacitor processing line. We have reviewed the proposed modification. The modification should have no adverse effect on the process.

I, therefore, recommend you approve the modifications.

David A. Wagoner
Director, Air and Waste Management Division

✓
ARWM/WMBR-PMTS:SBusch:lmh:x6531:11-25-83:Disk 9/4

PMTS
Busch

PMTS
Harrington

WMBR
Morby

ARWM
Spratlin

ARWM
Wagoner

Busch
11/24/83

Lucy
12/1/83

Davis & Clayman, P.C.

Attorneys at Law

TWENTY-THIRD FLOOR BRYANT BLDG

1102 GRAND AVENUE

Kansas City, Missouri 64106

M. D. CLAYMAN

W. J. DAVIS

J. R. MARCUS

E. B. TANNER

OF COUNSEL

response drafted
11/23/83

L. H. S. H.

TELEPHONE

816-421-3011

816-421-7012

October 27, 1983

Mr. Lyndell Harrington, P.E.
Chief Permits Section
Waste Management Branch
Air and Waste Management Division
U.S. Environmental Protection Agency
324 East 11th Street
Kansas City, Missouri 64106

HAND DELIVERED

CR1
enfile sec

Re: Amendment to capacitor processing approval
of P.C.B. Treatment, Inc.

Dear Mr. Harrington:

Enclosed please find a letter from Jack Van Gundy,
President of P.C.B. Treatment, Inc. which contains drawings
of the proposed modification to the approved P.C.B. Treatment,
Inc. capacitor process as discussed with Mr. Steve Busch, of
your office. This information is forwarded under Condition
No. 1 of the interim approval dated July 5, 1983.

Please note the claim of confidentiality on the contents
of the letter and enclosures. Please feel free to call if you
have any questions or objections to the proposed change.

Very Truly Yours,

DAVIS & CLAYMAN, P.C.

Jeffrey R. Marcus
Jeffrey R. Marcus

EPA-ARW-11/WMB
NOV 1 1983
Region VII R.C., MC

JRM/dp

RECEIVED

NOV 07 1983

AIR AND WASTE COMPLIANCE
BRANCH

PCB Treatment, Inc.
2100 Wyandotte
Kansas City, MO 64108
816-221-3660

October 21, 1983

Mr. Lyndell Harrington, P.E.
Chief, Permits Section
Waste Management Branch
Air and Waste Management Division
U.S. Environmental Protection Agency
324 East 11th Street
Kansas City, Missouri 64106

ATTENTION: Steve Busch

SUBJECT: Amendment to capacitor processing approval

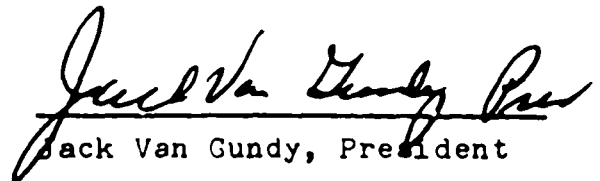
Dear Mr. Harrington;

We have found that the bandsaw we are using to cut open capacitors in our capacitor processing operation is very ineffective. Therefore, we intend to remove the saw from the capacitor line and replace it with an expanded metal table-top within a welded steel vat. (See the attachment for a drawing of this "cutting" table.) We intend to use this new section as a cutting surface upon which to cut open capacitors with an air hammer.

As per Dennis Nix's phone conversation with Mr. Steve Busch, we will assume that this change is not objectionable to you if we have not received a reply within 30 days and will proceed with the change as stated above.

For your information, we intend to thoroughly decontaminate the bandsaw, test its surface for contamination, and resell it after decontamination.

Very Truly Yours,

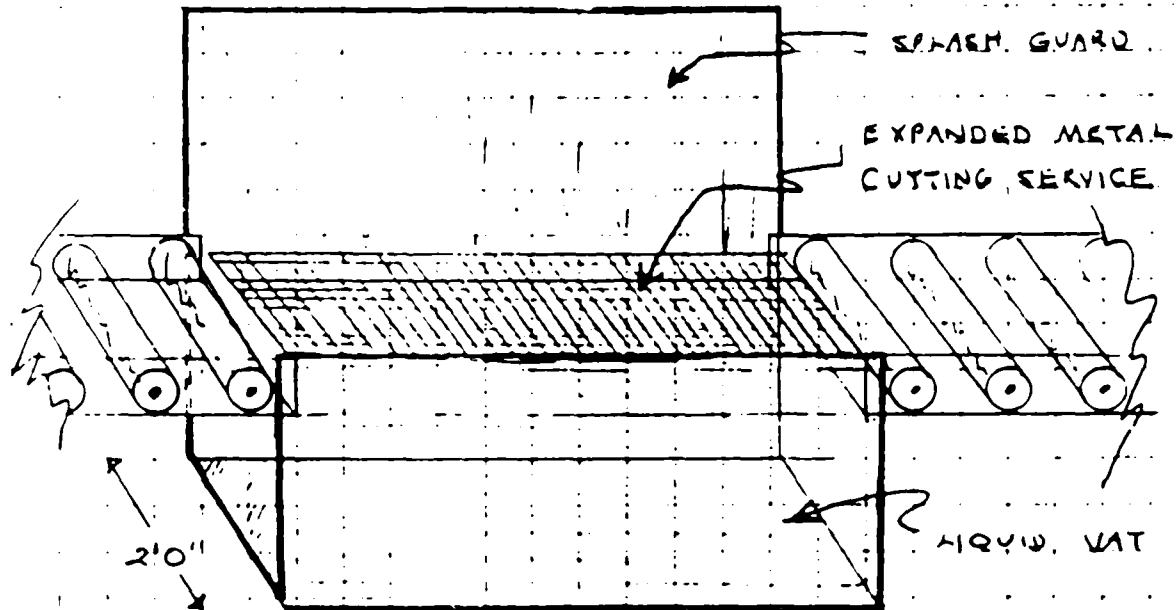

Jack Van Gundy, President

Attachment
JVG/d
TSCA CONFIDENTIAL
BUSINESS INFORMATION
DOES NOT CONTAIN NATIONAL
SECURITY INFORMATION (E.O. 12065)

CONFIDENTIAL

DECLASSIFIED
10-22-86
AID

ATTACHMENT
CPH AMENDMENT



PCB TREATMENT, INC.
2100 WYANDOTTE.
KANSAS CITY, MO 64108
PH 816-221-3660

TSCA CONFIDENTIAL
BUSINESS INFORMATION
DOES NOT CONTAIN NATIONAL
SECURITY INFORMATION (E.O. 12065)

CONFIDENTIAL

Davis & Clayman, P.C.

Attorneys at Law

TWENTY-THIRD FLOOR BRYANT BLDG

1102 GRAND AVENUE

Kansas City, Missouri 64106

M. D. CLAYMAN

W. J. DAVIS

J. R. MARCUS

E. B. TANNER
OF COUNSEL

TELEPHONE

816-421-3011

816-421-3012

October 3, 1983

Mr. Morris Kay
Regional Administrator
Region VII
324 E. 11th Street
Kansas City, Missouri 64106

Re: PCB Treatment, Inc. - "Quality Assurance
Program" and "Closure Plan"

Dear Mr. Kay:

Pursuant to the grant of interim approval of the PCB Treatment, Inc., process for PCB capacitors dated July 5, 1983, enclosed please find the Quality Assurance Program and Closure Plan. Please note on the enclosures the claim of confidentiality for the entire contents of both documents.

Please advise if you have any questions.

Very truly yours,

DAVIS & CLAYMAN, P.C.

Jeffrey R. Marcus
Jeffrey R. Marcus

JRM/dr

Enclosures

cc: w/Enclosures
Mr. Jack Van Gundy
PCB Treatment, Inc.
2100 Wyandotte
Kansas City, MO 64108

RECEIVED

OCT 05 1983

AIR AND WASTE COMPLIANCE
BRANCH

response drafted
11/23/83

P.C.B., Inc. of Missouri

(Ron) 612 464-2817

(Dan) 605 236-6254

2100 WYANDOTTE
KANSAS CITY, MISSOURI 64108
816-221-3660

EPA-ARWM/PMTS

AUG 18 1983

August 18, 1983

Region VII K.C., MO

Mr. Steve Busch
Environmental Protection Agency
524 East 11th
Kansas City, Missouri 64105

EPA-ARWM/PMTS

AUG 18 1983

Region VII K.C., MO

RE: Proposed Amendments To Capacitor
Processing Line For P.C.B. INC.

Dear Mr. Busch:

We propose to make the following changes in the existing capacitor processing line:

1. Replace existing oil drainage system with new system.
2. Install new and more powerful exhaust system.
3. Place line within metal pan with 2" lip. Workers will stand on floor grids of expanded metal.
4. Slightly relocate line within presently occupied rooms.
5. Replace band saw cutting system with air hammers - at least temporarily.

These changes are being requested for reasons of safety, cleanliness, and increased productivity.

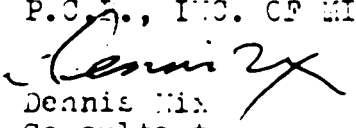
The attached drawing illustrate the line after the proposed changes.

For clarifications or further information, contact Dennis Mix at 221-3660.

Thank you for your time and consideration.

Very truly yours,

P.C.B., INC. OF MISSOURI

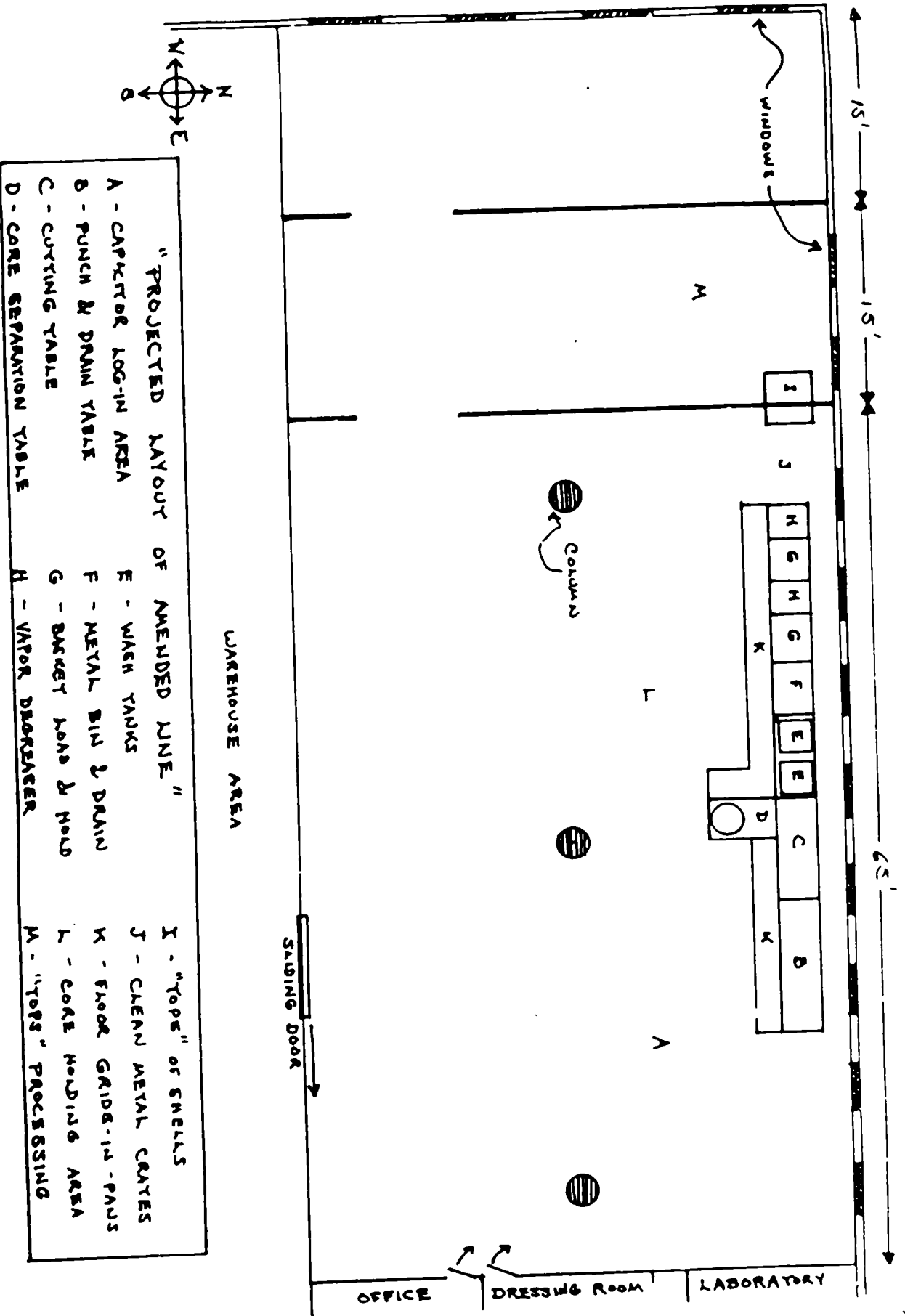

Dennis Mix
Consultant

DM:lv
encl. (4)

cc: Mr. Jack Van Gundy
Mr. Mike Cannova

CAPACITOR PROCESSING LINE, PCB, INC. OF MISSOURI
3RD FLOOR, 2100 WINDOCTE, K.C., MO. 64108

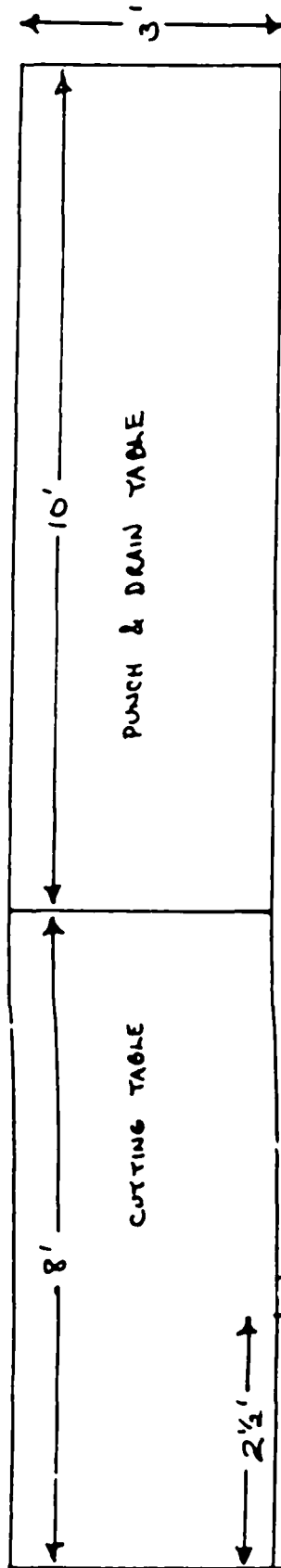
SUBMITTAL FOR AMENDING
CAPACITOR CLEANING SYSTEM



FRONT END OF AMENDED LINE
 PCB, INC. OF MISSOURI, 2100 WYANDOTTE, K.C., MO 64108

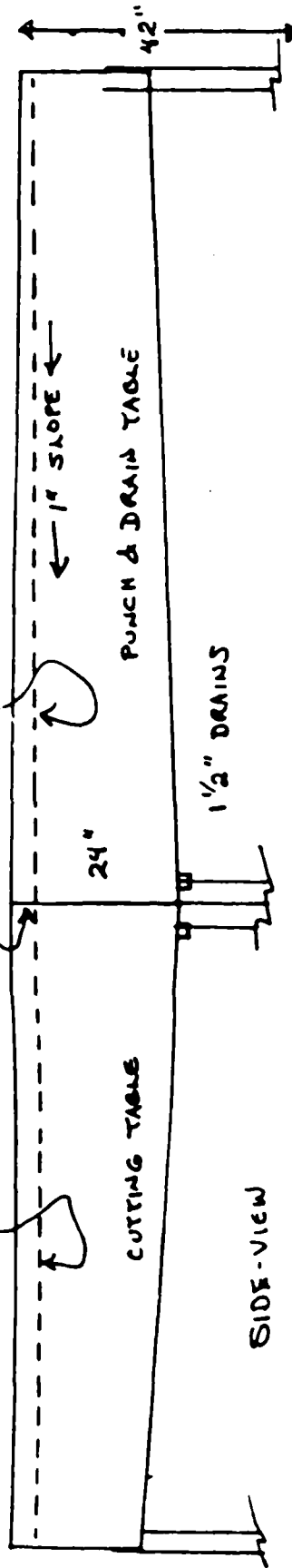
2

TOP-VIEW



• THESE THREE TABLES CONSIST OF VATS WITH TABLE-TOP WORKING SURFACES WHICH ALLOW THE OIL TO DRAIN THROUGH INTO THE VATS. CUTTING & PUNCHING WILL BE DONE WITH AIR HAMMERS UTILIZING APPROPRIATE BITS. AT THE SEPARATION TABLE, CORE MATERIAL WILL BE PLACED THROUGH HOLE INTO AWAITING DRUM & METAL PASSED ON TO WASH STATION.

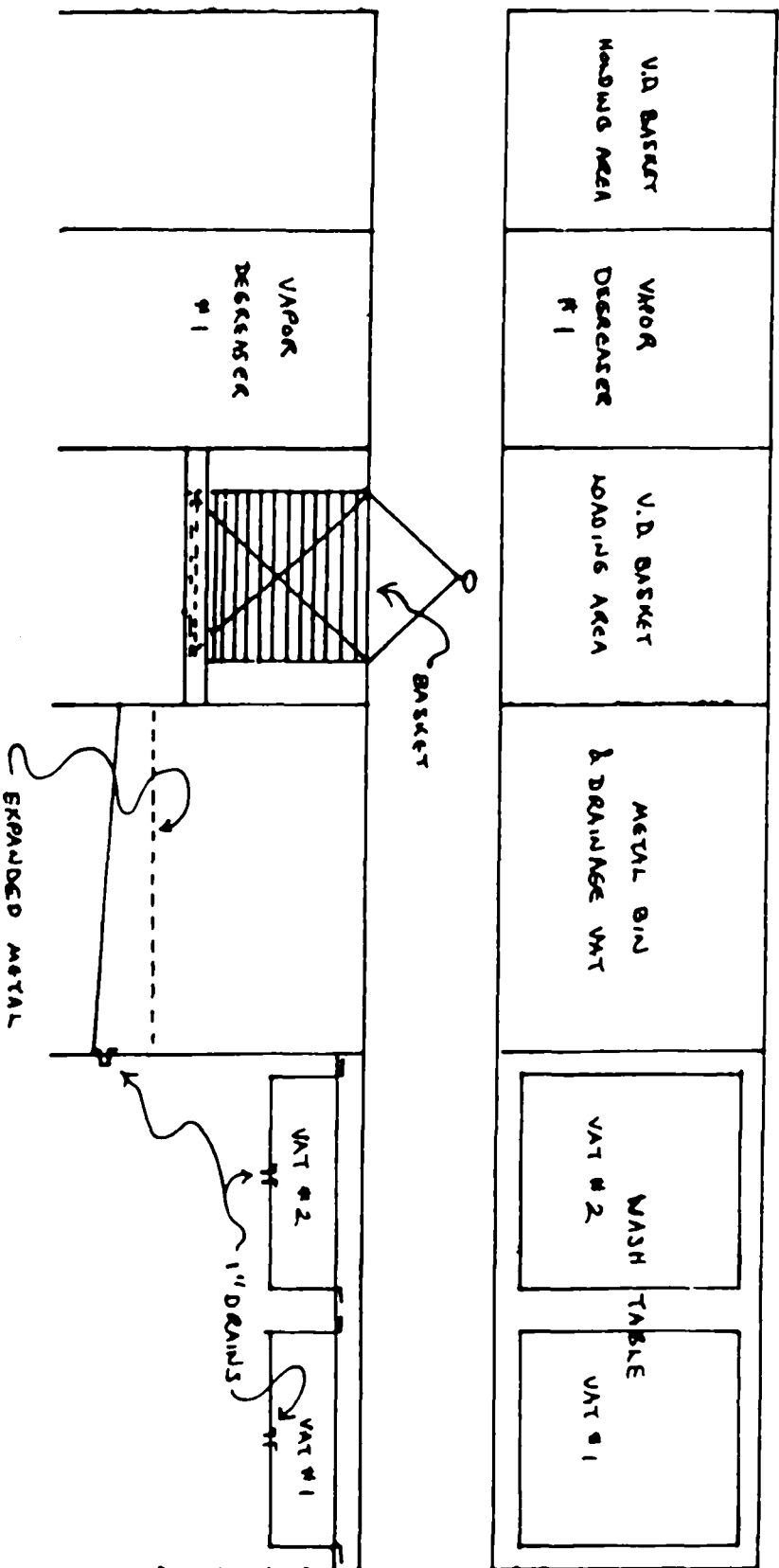
EXPANDED METAL WORK SURFACE SKATE-ROLLER WORK SURFACE



SIDE-VIEW

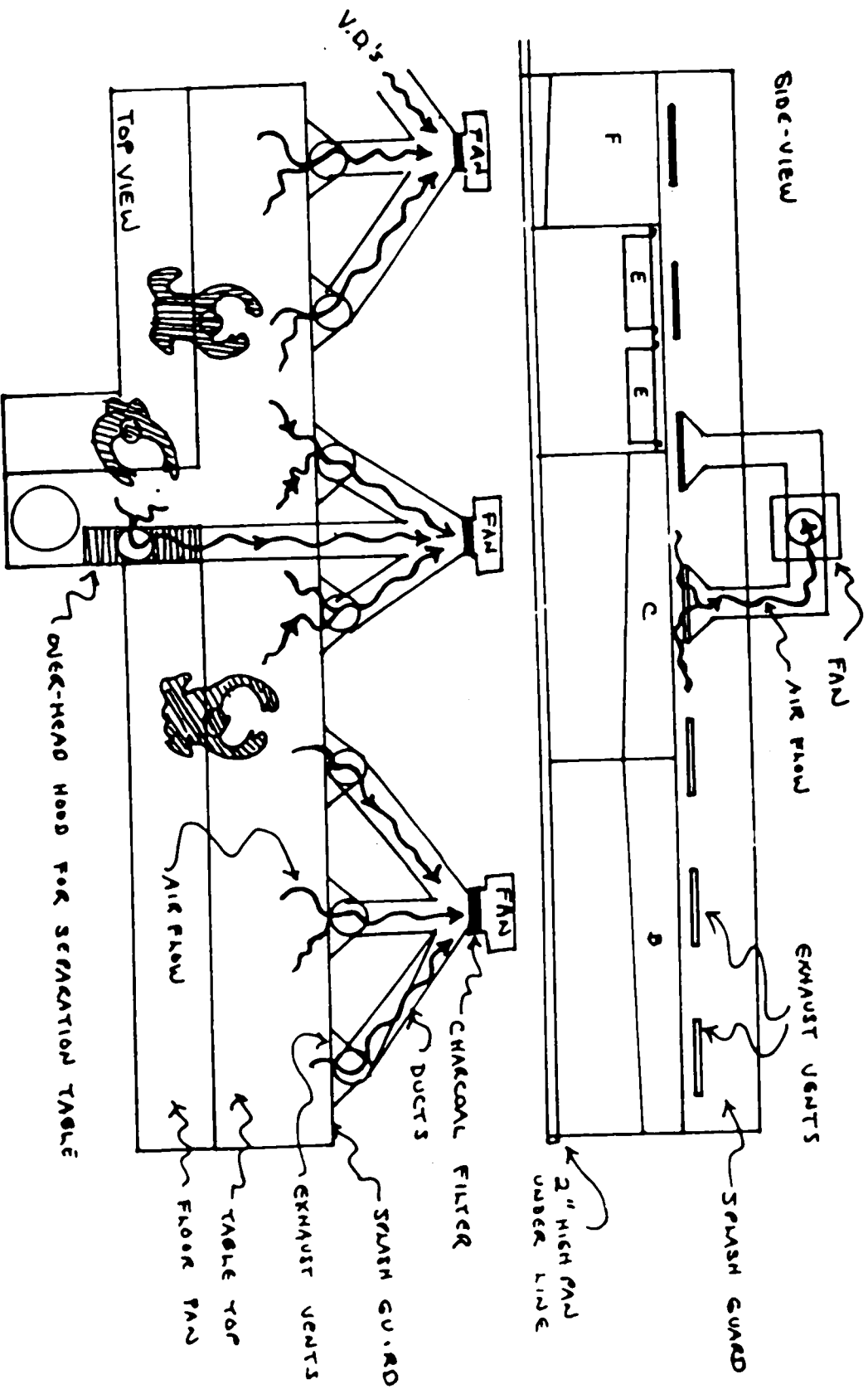
MIDDLE OF ARMED LINE
PCB, INC. OF MISSOURI, 2100 WYANDOTTE, K.C., MO 64108

TOP-VIEW



- WASH TABLE HAS REMOVABLE VATS - KEROSENE SCRUB & RINSE WILL BE PERFORMED HERE AS BEFORE
- METAL BIN IS TO ALLOW DRAINAGE AFTER WASH CYCLE
- METAL IS THEN LOADED IN BASKET FOR CHARGING CYCLE IN VAPOR DEGREASER

VENTILATION SYSTEM FOR CAPACITOR PROCESSING LINE RES. INC. OF MISOURI, 2100 WYANDOTTE, U.C., MO, 63108



- EACH DUCT WILL HAVE A DAMPER TO ADJUST AIR FLOW. AIR VELOCITY WILL BE SUFFICIENT TO CATCH VAPORS ON TABLE TOP-LEVEL.
- THIS DRAWING IS A ROUGH IDEA AND WILL UNDOUBTEDLY BE MODIFIED DURING CONTRACTUAL DISCUSSIONS WITH CONTRACTORS.

To: Steve Bush
From: Frank Zondca
Date: August 16, 1983

Steve, it is with some degree of disappointment that I must inform you that both Bob Schneider and I are no longer directly involved with the capacitor operation we built for C.B. Oil Inc. We have agreed to be available to this company on a temporary consulting basis.

It is with a great deal of gratification we extend to you for all your help and understanding during the past nine months. If there is any way that we can assist you, please feel free to call.

Sincerely,

Frank Zondca

Bob Schneider

Frank Zondca
Bob Schneider

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

August 3, 1983

Alternate PCB Disposal, PCB Treatment, Inc.

Michael J. Sanderson
Chief, Air and Waste Compliance Branch

Robert L. Morby
Chief, Waste Management Branch

Information pertinent to the review of the PCB Treatment, Inc., application for alternate disposal has been received in the TSCA CBI system. The information may be reviewed by an authorized member of your staff. Contact the TSCA DCO for access.


Frye:dgr:TOPE:8-3-83

CONCURRENCES							
SYMBOL	Frye	Alderman	Sanderson				
SURNAME	<i>Frye</i>	<i>La</i>	<i>La</i>				
DATE	8/3/83	8/ /83	8/ /83				

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE August 3, 1983

SUBJECT Alternate PCB Disposal, PCB Treatment, Inc.

FROM 
Michael J. Sanderson
Chief, Air and Waste Compliance Branch

TO Robert L. Morby
Chief, Waste Management Branch

re-reviewed 11/23/83
OK JCB

Information pertinent to the review of the PCB Treatment, Inc., application for alternate disposal has been received in the TSCA CBI system. The information may be reviewed by an authorized member of your staff. Contact the TSCA DCO for access.

Steve

RECORD OF COMMUNICATION		<input type="checkbox"/> PHONE CALL <input type="checkbox"/> DISCUSSION <input type="checkbox"/> FIELD TRIP <input type="checkbox"/> CONFERENCE <input type="checkbox"/> OTHER (SPECIFY):	
(Record of item checked above)			
TO	FROM:	DATE	
LYNN HARRINGTON	Bob Synder PCB, INC. 221 3660	7-25-83	TIME
SUBJECT			
PCB INC operation			
SUMMARY OF COMMUNICATION			
<p>Bob called to notify us of their intent to begin operation by the 1st (Monday or Tuesday) of next week.</p> <p>I told him we would except the phone call as notification, but I also ask him to follow-up with a letter</p>			
CONCLUSIONS, ACTION TAKEN OR REQUIRED			
INFORMATION COPIES TO			

July 7, 1983

3-4

Mr. Steve Bush
U.S. Environmental Protection Agency
324 East 11th Street
Kansas City, Missouri

Dear Mr. Bush:

Enclosed, please find ancillary data for consideration of our pending application for approval for destruction of contaminated capacitors.

This data consists of gas chromatographic analysis of capacitor swab tests, obtained synchronously with those obtained by yourself during our recent demonstration of May 12, 1983. These swab tests were analyzed in our laboratory facilities and independently by General Testing Laboratories. Copies of the chromatograms from both laboratories are enclosed.

The analytical results of these tests are summarized below, and in (mg/100 sq. cm.):

Capacitor Test Number	P.C.B. Inc.	General Testing
#1 Sample #1 from batch 1 processed through 1 wash & 1 vapor degreasing cycle	0.0009	Not Detectable
#2 Sample #2 from batch 1 processed through 1 wash & 2 vapor degreasing cycles	0.0006	Not Detectable
#3 Sample #3 from batch 2 processed through 2 washes & 1 vapor degreasing cycle	0.0022 As Araclor 1260	30.9 As Araclor 1242
#4 Sample #4 from batch 2 processed through 1 wash & 2 vapor degreasing cycles	0.0008	Not Detectable

We recognize that substantial interlaboratory variation exists and that results are strongly affected by the differences in precise location from which the samples were obtained, as well as differences in instrumentation, etc.

We hope that this data will prove useful for further evaluation of our pending application.

TSCA CONFIDENTIAL
BUSINESS INFORMATION

DOES NOT CONTAIN NATIONAL
SECURITY INFORMATION (E.O. 12065)

Sincerely,

T.K. Dobbs. *T.K. Dobbs*
B. Schneider *Bob Schneider*
F. Zondca *Frank Zondca*

DECLASSIFIED
10-22-80
458

Approved Request of P.C.B. Destruction Method

Section I

PCB Treatment Inc. is located at 2100 Wyandotte, Kansas City, Missouri. The on-site facilities at this location dealing with PCB destruction are as follows.

First floor loading and unloading dock is accessed by the alley in the rear of the building.

Storage facilities consist of the 2th and approximately two-thirds of the 3rd floor.

The balance of the 3rd floor which is enclosed contains the PCB destruction process line. Also in this area is our process lab used for testing and quality control.

Our proposed destruction method on the 3rd floor will require approval.

PCB Treatment Inc. is owned by Mr. Jack VanGundy 2100 Wyandotte, Kansas City, Missouri 64108, phone 221-3660.

The principal manager of this facility is Mr. Jack VanGundy and the supervisor of operations is Mr. Jim Scott.

The EPA contacts for the 3rd floor destruction process are as follows:

Mr. VanGundy: Address and phone same as above.

Mr. Jim Scott: Same

Bob Schneider: Safety and quality control manager---same

Frank Zondca: Process supervisor---same

**TSCA CONFIDENTIAL
BUSINESS INFORMATION**

**DOES NOT CONTAIN NATIONAL
SECURITY INFORMATION (E.O. 120**

Process Description

Section II

To destruct capacitors by the following method:

1. To record all data necessary for PCB Treatment Inc. to comply with all E.P.A., state and local requirements.
2. To open and drain the capacitor by the use of an air operated drill.
3. To saw the top/side and or bottom of the capacitor for core removal using a power hacksaw or air chisel.
4. To remove all components from the capacitor i.e., oil, core, top insulators, side and or bottom and place into approved containers for shipment to an approved EPA burn center.
5. To scrub, clean, and decontaminate canister of the capacitor to the approved level of .01mg/100 sq. cm by using kerosene in the scrub tank to remove heavy concentrations of oil, place in vapor cleaning stations containing 111 Trichloroethylene for final cleaning.

Operating Procedure

Drums containing PCB capacitors will be moved from the storage area by lot and storage number on a daily basis. Drums will be placed in the staging area for opening. The drum will be unsealed and the capacitor unloaded.

At the loading area all data per capacitor will be logged in the daily work log, i.e., where from, date, etc. All capacitors will be manually loaded on the entrance conveyor. They will travel to the lift conveyor which is controlled at the puncture station.

Capacitor will be punctured top, bottom, and side by a 1/2 inch air drill. Once the puncture occurs the capacitor will be allowed to drain. Air may be applied as necessary for faster draining if necessary. From the drain station the capacitor will manually be placed in the saw fixture for sawing. Both the top and bottom of the capacitor will be cut off leaving access to the core which will be removed and along with the top of the capacitor will be placed in a drum for storage and shipment to the burn center. The bottom will be placed on the conveyor to go to the wash station.

At the scrub/degreasing station the canister will manually be moved from the conveyor into the 1st wash tank. In the wash tank the canister will be washed and placed into the next tank for draining. Then moved to the 1st vapor chamber for degreasing approximately 15 minutes, removed and placed into the 2nd vapor chamber for the final degreasing and

cleaning. After dry, the canister will then be manually placed on pallets for 24 hours (minimum) storage. If all sampling swab test show less than 20mg/100sq cm, canister will then be released for disposition. Disposition will be salvage metal sale made locally.

A 1% Average Outgoing Quality (aoq) inspection plan will be used for the purpose of sample testing and will provide a 95% confidence level. All samplings will be made after the wash and degreasing process has been completed.

The process line is designed to handle approximately 10,000 lbs per 8 hour shift and we expect to handle a minimum volume of 10,000 lbs per week.

Process controls include automatic shut-off on the compressor, automatic shut-off on the power saw and automatic heat control shut-off on the vapor degreasing units.

Safety features include filtered exhaust at the saw, wash and degreasing stations. Drip pans under all conveyors and all work stations. Drum over fill floats will be used at all drum areas.

See attached drawings and pictures.

Anticipated Performance of the Unit

Until such time as approval is received and this unit can be placed into full production all performance figures stated, have not been verified by actual production results.

The two controlling factors of this line process are the saw (time to make cut on units) and the degreasing units. Also due to the varying sizes of the capacitors the time to saw and degrease will also vary.

Saw: Anticipate opening 17 per hour X 8 hours = 136 units
136 units X Avg. weight of 84 lbs
per unit = 11,424 lbs per shift

Degreasing unit: Anticipated performance. Average number of capacitors in on unit at a time = 4.9 X 15 minutes in the unit = 12.6 units per hour.

Equipment List:

Compressor: Will be stationed outside of the actual working area and the air piped in.

Air will be piped to the following line processes:

Drum opening area To be used on impact wrench.
Puncture area To be used on 2 in drills and
cylinder information.
Saw operation For blade cleaning and flushing.
Wash/Degreasing area For spray/flush and clean-ups.

Conveyor and Power Conveyor:

All conveyors are set for gravity feed except for one 3 foot power conveyor used to elevate capacitors to correct work station height at the puncture area.

Air Drills Will be 3 drills using approximately a 1/2" bit for puncturing the capacitor.

Saw Used to make top and bottom cuts on the capacitor saw blade will have a flush and wipe unit installed for blade cleaning.

Wash Tanks Are elevated and mounted on concrete blocks. Each tank will have a shut off and drain and will drain in to separate drums.

Degreasing Units:

Dual degreasing units are mount on drip pans and set on the floor. Water is piped to the units for cooling the coils and the units have their own filtered exhaust system.

Overhead Hoist:

Mounted on a rail above degreasing units to be used for loading and unloading the units. Used or waste cleaning solution kerosene and 111 Trichloroethylene will be moved in 55 gallon drums to the storage area for re-cycling and re-use, or for shipment to an approved burn center.

Drip Pans Will be under the entire line operations.

Chemistry

Name

extracted fluids drained from capacitors will be into drums, sealed, recorded and stored for shipment to an approved EPA burn center. Storage not to exceed 45

will be cleaned immediately, recorded on the daily and reported as necessary. Any injury or illness as a result of the normal operating conditions will require attention, recorded and reported in writing within 24 hours of the occurrence.

ts

ained daily into drums, sealed, labelled, and re-sealed. Kerosene and 111 trichloroethylene will be shipped to an approved burn center. In the near future to receive these cleaning agents for re-use.

initial start up and true operation 27 units out 3 units owned and processed will be selected at tested with all data recorded. Each unit will be stored for 24 hours awaiting test results.

owned will be stored in outgoing storage area for period awaiting test results. If tests are accepted will be prepared for shipment. If tests are re-jection of production that was rejected will be through the degrading units and re-tested. All accepted or rejected must be recorded and kept on

used cleaning and decontamination agents and the number of units to be cleaned can be reduced to 12 units. In this situation if 1 sample is rejected, 2 more must be reworked.

will

it be selected at the , marked, and tested for dephase.

selected and tested ess.

will perform all tests and test results will be re- a lab chemist.

ocessed in a normal just be verified by the ots must be processed units and re-tested.

e laboratory analysis and 1 in Section VI.

Safety

Section IV

1. All start-up, operating, and clean up procedures are to be followed at all times.
2. Air regulators installed and operational.
3. Drip pans and splash guards under all conveyors and around drill and wash stations.
4. Exhaust system containing charcoal filters.
5. Guard rails on all conveyors.
6. Availability of approved safety equipment i.e., fire extinguisher, first aid kit, eye wash station, safety clothing.
7. All machinery guarded and guards in place.
8. All hand tools kept in designated areas, not on the floor.
9. Approved protective clothing provided and must be worn at all times.
10. Possible contaminated protective clothing must be removed in the prescribed area before leaving the work area or plant.

Operating Safety

1. The P.C.B. Inc. safety check list must be reviewed and signed by all personnel working in the process area.
2. All start up and clean up procedures are to be followed at all times.
3. No power equipment including hand tools are to be operated unless more than one employee is in the area.
4. All ventilating and exhaust equipment is to be on and operational prior to any capacitor is drained or sawed open.
5. All machinery guards must be in place.
6. All air regulators and lines to hand tools are to be set at the approved P.C.B. standard.
7. All spills are to be cleaned up immediately and reported to the supervisor.
8. Drill bits and saw blade should be monitored regularly to be sure heat level is controlled and cooling system is operational on the saw.
9. Do not force power saw--follow operating manual at all times.

about maintenance and repair of working conditions, provisions of

operational maintenance, and safety, what is to be done
and how he is expected to integrate safety with them; which areas,
The supervisor should know what his total responsibilities are

Occupational Safety and Health Act of 1970.

ities. This policy conforms to the requirements specified in the
company to provide safe working conditions, equipment and facil-
disatisfaction and loss of good will. It is the policy of the
erty and equipment, which leads to interference with work plans,
inefficient operations. They result in needless damage to prop-
our people. In addition, accidents are indicative of wasteful and
of interested because it involves the safety and well-being of all
FCR Treatment, is vitally interested in accident prevention. It

POLICY

and what it expects as to his responsibility and authority.
The supervisor should first know what the Safety Policy is

worthwhile program.

aware of in order to be effective in promoting and maintaining a
There are a number of details that the supervisor needs to be
understand, and he must know of the safety program in his area.
ment of a safe work environment, the development of safe work
that the supervisor must play in the establish-
The objective is to increase the awareness of the individual

SAFETY POLICY PROGRAM

be acquainted with these procedure and to keep the instructions within close accessibility in the event of an accident.

8. Accident Reports - Timeless and Thoroughness

It is imperative that on-the-job injuries be reported as soon as they happen. Supervisors must insure that their work force be reminded of their responsibility to report accidents immediately. Injuries reported other than during the shift in which they occur will normally be treated as personal injury.

9. Accountability Through Training

A new employee training program includes

- * New employee safety orientation.
- * Understanding plant safety rules and resulting actions if they are not followed.
- * Periodic (at least monthly) safety meetings.
- * One-on-one training for special situations such as difficult jobs or slow learners.
- * Special training for emergency situations.
- * Job safety analyses and instructions.

If the supervisor is to teach things effectively, he must know them well.

F. C. B. Treatment Inc.

Safety Check List

1. Report any/all hazardous conditions immediately.
2. Importance of good housekeeping and cleaning of all spills.
3. Do not run in work areas or while at work.
4. Know locations of all exits, medical and emergency equipment.
5. Know fire and disaster procedures.
6. Smoking policy.
7. Never walk or stand on a skid or pallet, go around obstacles not over them.
8. Keep aisles clear at all times.
9. Wear proper clothing and safety protection appropriate for the job and approved by E.F.A. including shoes.
10. Lifting, bend knees not back.
11. Keep unprotected sharp objects out of pockets.
12. Read and obey signs, tags, markers identifying hazardous areas
13. Horse-play is unacceptable behavior.
14. Report injuries immediately to your supervisor.
15. Report all spills of contaminated materials immediately.
16. Operate machinery only if authorized to do so.
17. All jewelry is to be removed while working on the process line or operating machinery/hand tools.
18. Use solvents/flammable liquids only for the purpose intended and authorized by your supervisor.
19. Do not climb, jump, or sit on conveyors.
20. Do not climb, jump, or sit on drums.
21. Never stand skids/pallets on edge or lean against any object.
22. Look in all directions when moving drums.

The above check list and guidelines are intended for the protection of all employees and to insure their well being while on the job.

Date _____

Signed by _____

Approved by _____

Startup Procedures

1. Lighting, heating, and ventilating checked, turned on and operating prior to start up.
2. All drain pans, containers, and drums are to be checked for fullness. If full, remove according to procedure.
3. All machine and conveyor guards are to be in position and secure.
4. Perform oil up and preventive maintenance on all power equipment.
5. Saw blade wash tank checked for fullness and to be sure it is operational.
6. Exhaust filter checked and in place, replace as necessary.
7. Exhaust blowers turned on and operational.
8. All air regulators checked and set at prescribed level.
9. Wash and degrease tanks checked and filled to appropriate levels.
10. All safety equipment and materials in approved locations and in good repair.
11. All operating personnel must wear approved safety clothing which includes mask, glasses, gloves, jacket, pants, and boots.
12. Check daily log book and all data sheets for supervisors approval and for filling in appropriate area.
13. Check sample canister and test results for approved disposition of de-contaminated capacitor canister.

End of Shift Shut Down and Clean-Up Procedures:

1. All drip pans are to be cleaned and wiped down.
2. All drains are to be shut off.
3. All drain containers checked for fullness and removed if full and replaced with empty container.
4. All spill liquid drain containers are to be sealed, labelled, tagged, and moved to out going area for shipment to approved destination. Approved by supervisor.
5. All spill are to be checked by your supervisor before clean-up is complete and to be sure all data has been recorded.
6. All hand tools are to be cleaned, wiped, and placed in appropriate area.
7. Drill bits are to be washed with appropriate cleaning agent before returning.
8. Saw blade tank is to be cleaned and re-filled.
9. Saw table and work table to be washed and wiped down dry.
10. Decontaminated capacitor canisters are to be skided by number and moved to the storage area for holding. No canisters are to be moved from this area without the supervisors approval.
11. All floors and work platforms are to be swept and checked for spills.
12. All shop towels, materials, and liquids used in clean-up must be placed in approved containers for shipment to burn center.
13. All power is to be shut off at the breaker panel.
14. All exhaust fans are to be shut off.
15. All protective clothing must be removed in assigned area for storage and change.

Material Recovery.

It is the intent of P.C.B. Inc. to recover the following:

1. Canister and base, for sale as scrap metal.
2. The cleaning agents used (kerosene and 111 trichloroethylene)

will be shipped to an approved burn center, however it is the intent of PCB Treatment to continue to work on and achieve an approved method to re-cycle these agents for re-use.

All other components and materials will be placed in approved containers (drums) sealed and stored for shipment to an EPA approved burn center.

Arrangements have been made with the following to buy all components and materials:

Ensco Inc.
1015 Louisiana St.
Little Rock, Ark. 72202

Mr. Mike Ferrigno-Sales Man.
Mr. Charles Robertson-V.P. Mar. Mng.

Operating Conditions.

Operating conditions for the work areas including the process line are as follows:

1. Heating/air conditioning will be controlled to 65 degrees and will be shut down at the end of the normal work day.
2. All fire doors will be kept shut during normal operations, except during the loading of the staging area.
3. Fire extinguishers will be mounted in designated areas and checked per city code and ordinance.
4. Any and all spills will be cleaned immediately.
5. Process line will be cleaned at the end of each work shift and all clean up procedures followed.
6. All personnel working on the line will wear approved safety clothing i.e., boots, gloves, mask, etc.
7. Emission control: exhaust fans will be turned on at the start of each work day and remain on during operations. Charcoal filters will be checked daily to be sure they are in place and not clogged. All charcoal filters are to be changed (replaced with a new filter) on a weekly basis (Friday-major clean-up) and verified by the supervisor in charge.

Oil Containment

The entire process line will be equipped with 6 inch high drip pan with 3 drains. All oil liquids will drain into approved containers. The wash and degrease station with approved splash controls will drain in to 55 gallon drums for re-cycle. See drawings.

Wash and degrease tanks will be tested daily for contamination.

At the point that the kerosene and 111 Trichloroethylene exceeds

.01 mg/100² sq cm the tanks will be drained and re-filled with

virgin agents. The drying tanks will be cleaned at the end of each week's operation.

All drums will be loaded under the supervision of the supervisor in charge. Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor.

Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor. Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor. Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor.

3. Wash and Pressing Tanks

Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor. Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor. Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor.

4. Core Section Station

Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor. Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor. Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor.

5. Head Station

Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor. Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor. Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor.

Drums will be loaded in the order in which they are to be cleaned up immediately and loaded to the supervisor.

Environmental Impact

Section 2

Process Emissions and Air Discharge

The emissions from the oil degreasing areas are all vented by overhead vents with blowers pulling the air through 2 stage charcoal filters and into the outside atmosphere.

A. Toxicity Levels

In order to limit the spread of contamination strategic points throughout the operation shall be monitored by swab tests on a periodic basis as indicated below. These areas include

1. Floor space in the areas in which the capacitors are opened, drained, cut, and degreased. If concentration levels exceed $0.10 \text{ mg}/100 \text{ cm}^3$ the floor shall be decontaminated prior to resumption of operation.

2. Floor space and door handles leading to and out of the access/egress area shall be monitored bi-weekly for contamination. Contamination levels of floor space leading from the change room shall not exceed $0.10 \text{ mg}/100 \text{ cm}^3$. If levels in excess of $0.10 \text{ mg}/100 \text{ cm}^3$ are detected, the floor shall be decontaminated and checked again. In the event that decontamination by scrubbing with kerosene does not achieve required levels the floor space shall be treated with kerosene from shipping open flame paint.

3. All personnel including laboratory personnel shall be required to submit blood samples quarterly for laboratory analysis of P.C.B. concentration in the blood. Blood tests will be conducted at St. Mary's Hospital, Kansas City, Mo. At least one such test will be conducted prior to initial operation to establish background levels.

4. The filter effluent shall be monitored twice monthly by swab tests to measure the efficiency of charcoal filtration. The charcoal filters shall be changed at least monthly. In the event that charcoal filters should prove to be ineffective, an alternate method of treatment shall be installed.

5. Personnel must be of the following

6. Personnel must be of the following

7. Personnel must be of the following

Top regulator, cut off top side and on bottom will be placed in down same as above.

Centrifuge will be placed under benzene and 111 Trichloroethylene degreasing vapors.

5. Cleaning Agents

Trichloroethylene

Trichloroethylene used in the capon degreaser may be used until the concentration of oil in the solvent reaches a maximum of 30% by volume. This concentration is indicated by hydrometer reading of approximately 0.9.

Trichloroethylene used in the solvent will be recorded daily to indicate the concentration with which the solvent should be changed.

benzene

benzene solvent may be used until the oil concentration reaches a maximum of 30% by volume. These figures are to be maintained weekly by gas chromatograph analysis. When this concentration is reached, they will be disposed of with the degreaser solvent and stored.

In the future we intend to be able to analyze both vapors for oil.

Special Note: Information: 2100 Brandtite is located in the industrial building, corner of Detroit and Pontiac Avenues and the surrounding land is all residential buildings. Surface water and runoff in this area is handled by the existing sewer and drainage system. There is no specific flood control in this area however. Some one engineer operation is located on the 3rd floor the only existing problem relating to flood would be access to the building.

At this time no agreements have been made with Osage Iron & Metal, 120 Osage Avenue, for handling to purchase all loose metal from 2100. The only other consideration is:

Sampling and Analysis

Section 27

Sampling location will be after the 2nd vapor degreasing process. Location on the capacitor to take the sample will be the inside side wall or end and the normal swab method will be used following all procedures for this type of test.

Chemical Analysis

In order to assure that the maximum permissible PCB contamination level for capacitors of $0.02 \text{ mg}/100\text{cm}^2$ is achieved, it is necessary that chemical analysis be performed at regular intervals. These chemical analysis are conducted by a trained laboratory technician under the direction and guidance of a deputed chemist. The following is illustrative of the method of analysis.

A. Sample Collection and Preparation

Sample collection is performed by the laboratory technician after donning appropriate safety clothing. A representative area of 100 cm^2 is wiped with a clean filter paper (Whatman #54 or equivalent), and the filter paper extracted twice with 10ml aliquots of pesticide grade isooctane. The solvent is quantitatively transferred to a 25ml volumetric flask and the volume adjusted to 25ml.

B. Analysis

The sample, prepared as directed, is analyzed via gas chromatography (Schmadke GC Min 2) employing electron capture detection and a digital integrator as recommended by the protocol entitled, "The Analysis of Polychlorinated Biphenyls in Transformer Fluid and Waste Oils," issued June 24, 1980 by the Environmental Monitoring and Support Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Cincinnati, Ohio.

The quantification of PCB's is achieved using commercial mixtures of PCB's as standards. The results are calculated and reported on the basis of $\text{mg}/100\text{cm}^2$. A permanent record of the chromatograms is maintained with appropriate documentation.

7. Analytical Results

The quantification of PCB levels is achieved using commercial mixtures of PCB's as standards. The concentration of PCB contamination on the capacitor is determined by reference to the standard curve generated as described in section VI B above.

The analytical results are expressed in units of ppm (microgram/gram). This result is converted to milligrams by the following equations.

By definition $1 \text{ ppm} = 1 \text{ microgram/gram}$
 and $1 \text{ milligram} = 1000 \text{ micrograms}$
 therefore: $(1 \text{ microgram})(1 \text{ milligram divided by } 1000 \text{ micrograms}) = .001 \text{ milligrams}$. Since the area sampled is 100 cm^2 , the results take the final units of milligrams/100 sq. centimeters.

8. Documentation of Analytical Results

Samples analysed by gas chromatography shall be labeled to clearly indicate identity of the original sample. Chromatograms are identified by a GC number. This number is recorded in a daily log book which contains the sample identification and description. The chromatogram is also identified with the sample Batch number and manifest number and cleaning cycle, if necessary. The date and time of each analysis is also recorded.

The original chromatograms are filed by GC identification number. A copy of the results is returned to the capacitor room supervisor for his file. These files are maintained for five years as a permanent record. A suitable cross-reference system correlating laboratory results and manifest number shall be instituted and maintained.

Quality Control

A. Instrumentation

All equipment used to generate analytical results shall be tested to ensure proper function. Standard operating procedures for analytical balances, and gas chromatographs shall be developed and experimental records shall be permanently filed in compliance with good laboratory practice (G.L.P.) guidelines.

B. Accuracy of Chromatographic Data

Accuracy of analytical data is primarily dependent on parameters such as instrument operation, standard preparation, and human error.

1. Instrumentation

The laboratory is currently equipped with a Shimadzu GC model gas chromatograph. However, this instrument will be superseded by the acquisition of a Varian 3700 chromatograph equipped with a Linear Electron Capture Detector, auto sampler and digital electronic integrator. Detector linearity and auto sampler performance shall be checked quarterly. The instrument shall be calibrated daily by analysis of calibration standards from standard stock solutions which approximate the unknown sample in composition and concentration. The calibration curve generated must be checked daily using a laboratory control standard. Accuracy and precision of the L.C.D. shall not exceed 15% of the known value.

An accuracy statement is generated by quadruplicate analysis of a concentration. The accuracy is defined as $R/I.S.$ where R is the known concentration and S is the standard deviation.

An FMD's Quality control sample shall be analyzed quarterly. The results should agree within 15% of the true value.

Specimens selected for analysis shall be tested in duplicate at least twice monthly. One of these tests will be sent to an independent laboratory such as General Testing Laboratories. The remaining test shall be tested in our laboratories. These results shall agree within statistical limitations.

Other quality control programs may be developed and maintained as necessary.

Contingency Plan

Spill-
Fire

Emergency coordinator for P.C.B. Inc. is

Mr. Jim Scott Phone 221-3660

1. All spills must be reported immediately to the emergency coordinator.
2. All spills are to be cleaned up immediately using EPA approved methods and materials (i.e. dry-rite floor dry, etc.).
3. The emergency coordinator will inspect the clean-up of all spills and will notify the spill response people at EPA. Phone 374-3779.
4. EPA and other local officials should contact the emergency coordinator regarding spill information. Call Work 221-3660 Home 931-1477.

The entire storage and process areas at P.C.B. Inc., 2100 Wyandotte, K.C., Mo are contained according to EPA requirements

Posted

Fire Procedure:

1. Notify the emergency coordinator immediately.
2. Shut off all electrical equipment, if possible, shut off all electrical at the breaker panel located on the north wall.
3. Cover degreasing units and scrub tank.
4. Fire extinguishers are located in the process area and identified by red marking labels and are to be used in case of emergency.
5. Do not attempt to fight or put out a large fire. Evacuate the building and let out local fire department do their job.
6. Emergency Exits are:

1. Stairwell located at the northeast corner of the building
2. Stairwell located in the center of the storage area next to the forklift elevator.

Do not attempt to use the elevators in case of a fire emergency.

7. Emergency equipment on site:

Fire extinguishers
First aid kit

Eye wash station

Spill control materials shovel, broom, floor dry

Occupational Compliance

Notification of OSHA, 2100 Wyandotte, Kansas City, Mo. intent to provide and protect capacitor, has been sent to state and local agencies.

It is also the intent of PWR Inc. to provide a safe place of employment to all its employees. To assure compliance with safety and health requirements set forth by the OSHA Act of 1970. Further, it is our intent to assure that PWR Inc. is in compliance with all OSHA requirements, which includes the posting of the OSHA notice and record keeping requirements.

Section 1. Plant Temporary Shut Down. Part 1.

Plan 1 is based on the knowledge that the shut down is only temporary and is expected to last 15 days.

1. All on-site capacity storage inventory will be inventoried within 24 hours of shut down date and all records updated. Action will be taken as necessary related to inventory results, i.e., movement of goods to destination with notification to capacity owner.

2. All on-site capacity components and records will be inventoried within 4 hours of shut down date. Contingent on volumes and storage dates, action will be taken as necessary, i.e., hold in storageship to burn center.

3. On-site destruction facility

- A. All records and logs will be locked up for safe keeping.
- B. All employees will be notified of shut down within 24 hours and a notice will be posted in the process area.
- C. Process facilities, i.e., conveyors, pans, drills, saw, etc will be washed and cleaned thoroughly.
- D. Wash tanks and degreasing units will be drained and cleaned.
- E. All device containers will be stored for re-use or shipment to an approved EPA burn center.
- F. All hand tools and safety equipment will be checked, cleaned, and prepared for shipment to the burn center.
- G. All equipment and tools used but in the process area will be returned to the storage area.
- H. All floors in the process area will be swept and mopped down thoroughly.

Continued - Plant Temporary Shut Down.

Plant is based on the knowledge that the shut down will exceed 45 days but is not a permanent shut down.

1. Same as Part I except for the following:

All capacitor owners will be notified in writing within 48 hours of the shut down, reason for the shut down, expected start-up date (if available) and disposition, if any, of on site capacitors belonging to them.

2. Same as Part I except for the following:

All contaminated components will be prepared for shipment and shipped to an approved EPA burn center within 30 days of shut down. All decontaminated components, i.e., canister and bottom (scrap metal) in excess of 1000 lbs will be shipped and sold as scrap metal (locally).

3. Same as Part I.

Process area to be locked up. Authorized personnel only will be admitted.

Contingency Plan--Emergency Shut Down. Part 3.

Based on the degree and/or situation of the emergency, and the expected time to end the emergency, which will be determined by the OPA, the following action will be taken:

1. Same as Part 1 and 2 of this contingency plan.
2. Limited area shut down.
 - A. All power to the segment must be shut off at the breaker box.
 - B. All open drains and tanks must be closed. Small drain containers must be emptied into auxiliary stand by safety drums and sealed.
 - C. Wash scrub tanks must be covered.
 - D. All doors must be closed.
 - E. All records and documentation will be placed in fire proof cabinet.
 - F. All employees will exit via the fire exit or contingent stairways.
3. Depending on the emergency and time allowed for shut down the following steps will be taken in addition to the above.
 - A. All capacitors on line but not over will be replaced in drums they were received in. All drums will be placed back in the storage area.
 - B. All components will be sealed in approved containers and removed from process area to shipping area.
 - C. All equipment and the process line will be cleaned according to normal clean up procedures.
 - D. All records and data will be picked up and removed from the area by the supervisor in charge.

Continuation of Plan of Closure - Part 4.

1. All removed capacitors shall be decontaminated capacitors with which the PCB treatment firm has done or is doing business with shall be used for decontamination of the capacitors within 7 days of closure notice.

2. Closure will start within 72 hours of notice and will be complete and final within 45 days of notice. If longer, justification must be made in writing to the EPA.

3. PCB Treatment firm agrees to give the EPA that funding is available for closure if and when necessary.

4. Closure Plan Outline

EPA Facility ID No. MOD930633044

Owner Name: Jack Van Bundy

Address and Phone No.: 2100 Wyandotte, K.C., Mo. 221-3660

Facility Address: 2100 Wyandotte, K.C., Mo.

1. Facility Conditions

A. General Information

1. Size of facility: 60,000 square feet
2. Storage facility: Drums
Capacity not to exceed 2500 drums at any one time.

3. Other facility on site: Reactor.

4. Waste Characterization:

- A. Removed capacitor top
- B. Core of capacitor.
- C. Contaminated oil (PCB) drained from capacitor.
- D. Sludge from wash and scrub tank.
- E. Contaminated cleaning agents - liquid.

5. Maximum amount of inventory ever on site including processing not to exceed 3000 drums.

C. Schedule for final closure.

1. Final date waste accepted.
2. Dates for completion of inventory disposal.
 - A. Date all pre-processing completed.
 - B. Date all on-site disposal completed.
 - C. Date that all inventory has been disposed of on site.
 - D. Date that all inventory has been removed off-site.

Final site cleanup shall be documented and submitted to the EPA for review and approval. The time required to close the facility, from the date of closure is longer than 6 months.

Final Site Cleanup

1. Determine amount of waste on-site in any stage of processing.
2. Determine amount of waste residue in drums and number of drums. All waste shall be removed in 1500 gallons and or 30 drums.
3. Method of removal for disposing or removing inventory.
4. All waste residue shall be shipped to an approved waste transfer and or landfill.
5. All waste residue (sludges, oil and sludge) will be removed and shipped to an approved waste transfer and or landfill.

All waste residue shall be shipped to an approved waste transfer and or landfill.

Final Site Cleanup

1. All equipment and facilities requiring cleaning, recovery and or reuse shall be washed/scrubbed.
2. All hand tools including air drills--wash/scrub.
3. Floor saw remove blade--wash/scrub.
4. Wash and scrub tanks and grates--wash/scrub.
5. Total work area--wash and scrub.
6. All waste and residue will be put in drums, sealed and shipped to an approved burn center.
7. All cleaning agents will be recycled through RCH treatment facility.

Final Site Cleanup

1. All estimated number of inspections by the certifying authority anticipated during closure is as follows:
2. Start of closure proceedings to verify inventory and all documentation.
3. Daily inventory removal and when removal is completed.
4. After facility has been demolished.

Regulatory Compliance

Section VIII

Local

Rob Treatment has permission to test methods for EPA approval. Mayor's office has been notified of test and demonstration date.

State

Rob Treatment has permission to test method for EPA approval and the Wisconsin Department of Natural Resources has been notified of test and demonstration date.

Federal

Previous permission expired April 29, 1983 and a request has been made to the regional EPA office for permission to continue our testing to achieve EPA certification.

Current Schedule

We have requested through EPA a test and demonstration of our destruction method for May 10, 1983. Based on the results and pending approval we do not plan on actual production.

It should also be understood that compliance to all regulations and requirements will be met before we go into full production with notification to converter owners.

Demonstration Plan

Section VIII

To be held at 2100 Wendolite, Kansas City, Mo. on May 12, 1983
at approximately 11:00 a.m.

Quantity: (to be determined by EPA representative)
Type: PCB contaminated capacitors

In a previous test and demonstration for EPA our entire process was monitored. From this many changes have been made and the EPA representative will indicate to us what he wants to review.

Quality Assurance Plan

One sample per hour or one sample per every 15 capacitors will be selected (at random) after the final degrading process. A swab test will be made on this sample, taken to the lab for testing and analysis of results, approximately every hour. Units produced during this time frame will be identified with sample. If results are favorable then that lot passes, if unfavorable then lot rejects and must be re-worked and a second test made.

Steve Bush-EPA representative, Region 7, will evaluate all tests, data and the process demonstration.

See attached data for name, address, and qualifications of individual at PDI Inc. who will evaluate all internal tests and results.

**TSCA CONFIDENTIAL
BUSINESS INFORMATION**
DOES NOT CONTAIN NATIONAL
SECURITY INFORMATION (E.O. 12065)

P. C. B. Treatment, Inc.
Capacitor Disposal Approval Request

Director, Air and Waste Management Division

Morris Kay
Regional Administrator

P.C.B. Treatment Inc. has requested the approval of their PCB capacitor disposal process. The process consists of a separation of the capacitor components and the recycling of some of the materials. All PCB contaminated material will be disposed of by incineration or an equivalent method. Approvals for similar capacitor disposal methods have been granted previously.

My staff has reviewed the P.C.B. Treatment, Inc. request and have observed a demonstration of the process. The disposal method will provide an effective disposal method in an environmentally sound manner. I recommend you grant interim approval to P.C.B. Treatment for their capacitor disposal process.

David A. Wagoner
Director, Air and Waste Management Division

ARM:WMR:PMTS:SEUSCH:DU:x6864:6/29/83:LMH:Disk D/99

PMTS
Busch

Busch
6/30/83

PMTS
Harrington

LH
6/1-1/83

WMR
Morby

CU 7/1
JBC

TOPE
Prye

Mike
7-1-83

ARM
Spratlin

out

ARM
Wagoner

Sanborn
7-1-83

RGAD
Kay

JUL 05 1983

Mr. Jack Van Gundy, President
P.C.B. Treatment, Inc.
2100 Wyandotte
Kansas City, Missouri 64108

Dear Mr. Van Gundy:

I hereby grant interim approval to the P.C.B. Treatment, Incorporated to process polychlorinated biphenyl (PCB) capacitors, in the manner described to the Environmental Protection Agency (EPA), Region VII office, in order to reduce the volume of material subject to PCB disposal requirements. This approval, which is subject to the attached conditions, is effective only for the P.C.B. Treatment, Incorporated facility at 2100 Wyandotte, Kansas City, Missouri 64108, and is granted pursuant to Section 6(e) of the Toxic Substances Control Act (TSCA) and 40 CFR 761.60(e). This approval is based upon the ability of the processing method employed to reduce the volume of material subject to PCB disposal requirements. Only the processed materials with non-detectable amounts of PCB will be considered non-PCB materials. All materials which contain detectable quantities of PCB shall be considered PCBs or PCB items and shall be managed accordingly. It is our understanding that there will be no emission of PCBs to the air or water (surface or groundwater). This approval is based on the Agency's present belief that the process described to EPA, Region VII, when properly managed, does not present a risk of injury to health or the environment and, within the confines of existing analytical capabilities, provides PCB destruction equivalent to an incinerator (40 CFR 761.70) or high efficiency boiler (40 CFR 761.60).

This interim approval shall be effective on August 1, 1983, and shall be effective for six (6) months, until February 1, 1984. This interim approval may be withdrawn, or further conditions may be added to it at any time. Moreover, violation of any condition included as part of this approval (see attachment) may subject P.C.B. Treatment, Incorporated to enforcement action and/or termination of the approval.

If you have any questions or comments regarding these matters, please contact me. The member of my staff most familiar with this subject, Mr. Stephen Busch, Chemical Engineer, Permits Section (816/374-6531) can also provide additional information.

Sincerely yours,

Morris Kay
Regional Administrator

Enclosure

ARWM:WMBR:PMTS:SBUSCH:DU:x6864:6/24/83:LMH:Disk D-99

PMTS
Busch

Duch
6/29/83

PMTS
Harrington

Z
6/29/83

WMBR
Morby

6/30

TOPE
Frye

7-1-83

ARWM
Spratlin

cut

ARWM
Wagoner

for
Stenham
7-1-83

RGAD
Kay

151 mk
7/5/83



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
324 EAST ELEVENTH STREET
KANSAS CITY, MISSOURI 64106

JUL 5 1983

OFFICE OF
THE REGIONAL ADMINISTRATOR

Mr. Jack Van Gundy, President
P.C.B. Treatment, Inc.
2100 Wyandotte
Kansas City, Missouri 64108

Dear Mr. Van Gundy:

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If you have any questions or comments regarding these matters, please contact me. The member of my staff most familiar with this subject, Mr. Stephen Busch, Chemical Engineer, Permits Section (816/374-6531) can also provide additional information.

Sincerely yours,

Morris Kay
Regional Administrator

Enclosure

Conditions of Interim Approval

P.C.B. Treatment, Incorporated

1. P.C.B. Treatment, Inc. may disassemble or process PCB capacitors, in order to reduce the volume of materials subject to U.S. Environmental Protection Agency (EPA) polychlorinated biphenyl (PCB) disposal requirements, as described in the information on file at the EPA Region VII office. No modification to the system may be made without prior approval from the EPA Region VII office. Modification of the system without notification or prior approval of the modification will void this approval.

2. All components of the capacitor must have no detectable PCB residues or PCB concentration in order to be considered a non-PCB item. Analytical data shall be available to demonstrate the components treated do not contain PCBs. If analytical data are not available, components of the capacitors must be considered PCB items. For purposes of compliance, realistic detection limits for various types of material shall be considered as follows:

Solids (large regular surface area) - 0.01 mg/100 cm²
Solids (finely divided or irregular surface) - 0.2 mg/kg
Liquids (oils or solvents) - 2 mg/kg

3. All liquids used in the processing of capacitors or capacitor components must be considered PCB liquids unless demonstrated to contain less than 2 mg/kg PCB. Disposal of these liquids, which are considered PCB liquids, must take place at an EPA approved incineration facility (meeting the requirements of 40 CFR 761.70) or treated by an EPA approved method which is an alternate to incineration (approved under 40 CFR 761.60(e)).

4. All components of a capacitor which contain a detectable quantity of PCB as defined in item #2 above, shall be disposed of at an EPA approved incineration facility (meeting the requirements of 40 CFR 761.70) or treated by an EPA approved method, which is an alternate to incineration (approved under 40 CFR 761.60(e)).

5. Any cutting tool or other device used in the processing of capacitors must be operated in a manner to prevent heating of material which may result in the vaporization of PCBs and the subsequent uncontrolled entry of PCBs to the environment. There shall be no release of PCBs to the environment.

6. Ventilation of the work area, to adequately protect workers from any vapors that might be generated in the processing of the capacitors shall be provided. P.C.B. Treatment, Inc. must comply with all Federal, State and local health, safety and environmental requirements for this approval to be considered valid.

7. P.C.B. Treatment, Inc. must report any release to the environment of PCBs which occur as a result of capacitor processing activities.

8. Any injury or any illness which occurs as a result of the processing of capacitors or the handling of PCBs must be reported to the EPA Regional Office, PCB Coordinator at (816) 374-3036.

9. Any reports required by conditions 7 and 8 above are to be submitted by telephone to the EPA Regional Office by the next regular business day and followed in writing within five days to the EPA Regional Administrator, 324 East 11th Street, Kansas City, Missouri 64106, and to the Director of the Office of Toxic Substances, Office of Pesticides and Toxic Substances, 401 M Street, S.W., Washington, D.C. 20460.

10. P.C.B. Treatment, Inc. must develop and maintain the following records:

- a. The name of the person or firm whose capacitor is being processed;
- b. The manufacturer, rated capacity and identification number of the capacitor;
- c. The date the capacitor is received and the date or dates processed;
- d. The ultimate disposition of all components of the capacitor; this should include the nature and quantity of materials being disposed of, and the location, disposal method, and date of disposal; and
- e. A copy of the gas chromatograph or data record from test conducted to demonstrate final PCB concentrations, as specified in paragraph 3.

11. A thirty-day (30) advance notification must be provided to the Regional Administrator of Region VII and the State and local officials prior to the first operation of the PCB Treatment, Inc. process. All notifications must include the date and the exact location of the destruction activity. Sufficient information must be provided so that an unannounced inspection of the destruction process may be conducted.

12. P.C.B. Treatment, Inc. must develop and submit to EPA an acceptable closure plan for terminating the PCB handling systems. The plan shall be submitted within three (3) months from the date of this approval. These plans shall include the decontamination or disposal of PCB contaminated equipment or process materials. A cost estimate for closure, under worst possible conditions, shall be included with the closure plan. The intended financial mechanism for closure as outlined in the closure plan should also be included in this plan.

13. A quality assurance program shall be established and submitted to EPA within three (3) months from the date of this approval, to ensure that the P.C.B. Treatment, Inc. process is properly operated and maintained.

14. USEPA reserves the right for its employees or agents to inspect P.C.B. Treatment, Inc. activities at any time.

15. The processing of a capacitor shall not be considered complete until all components of the capacitor are disposed of properly. Limitations and/or regulations which apply to capacitors shall also be considered applicable to capacitor components (e.g., in storage for disposal, disposal is not complete until all components are properly disposed of, thus storage is from the date of receipt to the date the last components of the capacitor is disposed of).

16. Thirty (30) days prior to the expiration date of this interim approval P.C.B. Treatment, Inc. shall submit a summary of the information required under item #10 of these conditions of approval with a sample of the data management log or data sheet, to the Region VII, Waste Management Branch. With this information shall be a statement by a responsible company official, that the company has complied with all conditions of this approval and Federal PCB rules and regulations; or a statement which specifies that a certain condition of the approval or Federal PCB rule or regulation was not met and the corrective action taken to insure compliance.

17. P.C.B. Treatment, Inc. must notify the EPA Waste Management Branch of the first intended date of operation of the P.C.B. Treatment, Inc. PCB capacitor disposal process. This notice must be provided seven (7) days prior to the start-up date. EPA intends to take additional samples during the interim approval period. Please contact Stephen P. Busch at 816/374-6531 for notification purposes.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE June 22, 1983
SUBJECT PCB Treatment, Inc.

FROM Charles P. Hensley, Chief
Laboratory Branch, ENSV 020 Y

TO Robert L. Morby, Chief
Waste Management Branch, ARWM

ATTN: Stephen P. Busch
Chemical Engineer, ARWM-WMBR

Activity: AC59

Analysis Type: PCB

Date: June 13, 1983

Analyst: Robert L. Greenall

Sample Number

Compounds

AC59'0	None detected
AC5911	None detected
AC5912	PCB 1242
AC5913	None detected
AC5914	PCB 1242
	PCB 1254

No other PCB compounds were detected.

Quantity

ug
19.5 mg/100 cm²
1.98 mg/100 cm²
1.60 mg/100 cm²

Talked to
Greenall, said
mg is an e
should be
PB
6/30/83

PA-ARWM/PMTS

JUN 29 1983

June 20, 1983

Mr. Steve Bush
U.S. Environmental Protection Agency
324 East 11th Street
Kansas City, Missouri

Dear Mr. Bush:

Enclosed, please find ancillary data for consideration of our pending application for approval for destruction of contaminated capacitors.

This data consists of gas chromatographic analysis of capacitor swab tests, obtained synchronously with those obtained by yourself during our recent demonstration of May 12, 1983. These swab tests were analyzed in our laboratory facilities and independently by General Testing Laboratories. Copies of the chromatograms from both laboratories are enclosed.

The analytical results of these tests are summarized below:

Capacitor Test Number	P.C.B. Inc.	General Testing
1	0.0009	Non Detectable
2	0.0006	Non Detectable
3	0.0022 as Araclor 1260	30.9 as Araclor 1242
4	0.0008	Non Detectable

We recognize that substantial interlaboratory variation exists and that results are strongly affected by the differences in precise location from which the samples were obtained, as well as differences in instrumentation, etc.

We hope that this data will prove useful for further evaluation of our pending application.

Sincerely,

T.K. Dobbs
B. Schneider
F. Zondca

Frank Zondca
B. Schneider

RECEIVED

JUN 27 1983

AIR AND WASTE

TSCA CONFIDENTIAL



General Testing Laboratories, Inc.

Engineering — Chemical Consultants

1517 WALNUT STREET / KANSAS CITY, MISSOURI 64108 / 816-471-1205



Date May 16 1983

Number 46350

Sample of 4 Swabs

Marked Received in lab 5-13-83

Client PCB Inc. of Missouri

10328 - 6 c . 0150

10329 6 c . 0151

10330 6 c . 0152

10331 6 c . 0153

PCB's

None Detected

None Detected

30.91 micrograms AROCLOR 1242

None Detected

**TSCA CONFIDENTIAL
BUSINESS INFORMATION**

DOES NOT CONTAIN NATIONAL
SECURITY INFORMATION (E.O. 12958)

(1)cl

GENERAL TESTING LABORATORIES, INC.

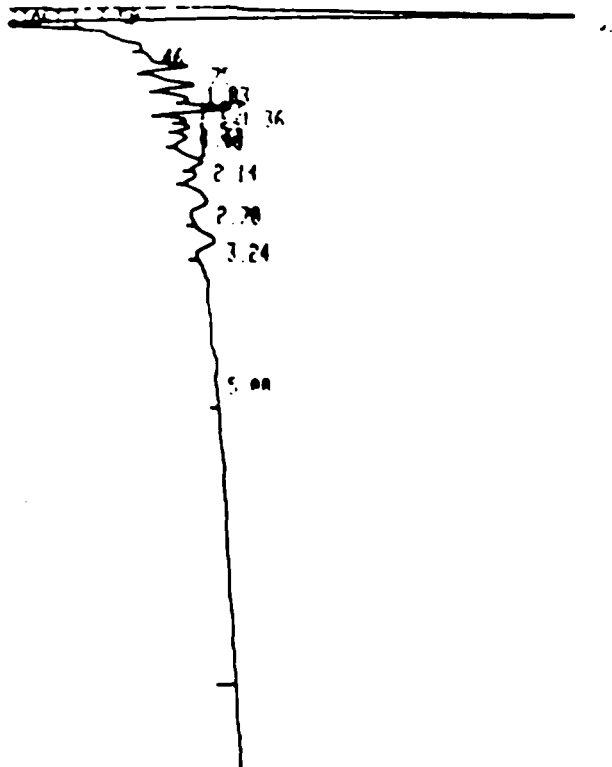
By

Lawrence P. Bivona

General Testing Laboratories, Inc.
1517 Walnut St.
Kansas City, MO 64108

Report No. 46350
May 16, 1983

10 1242 - A 250



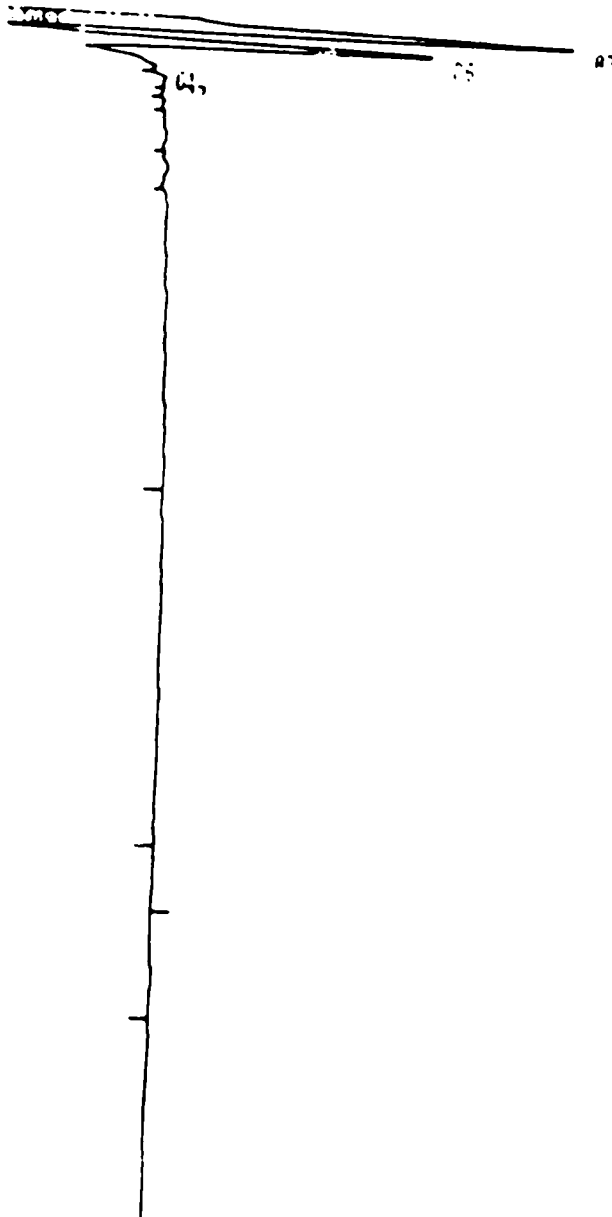
STOP

RUN 8 56
ID 1242-0.25
NO RUN PEAKS STOPPED

GC 00150
N 70's
3-16-83 ATB

General Testing Laboratories, Inc.
1517 Walnut St.,
Kansas City, MO 64108

ID 46350-103280



Report No. 46350
May 16, 1983

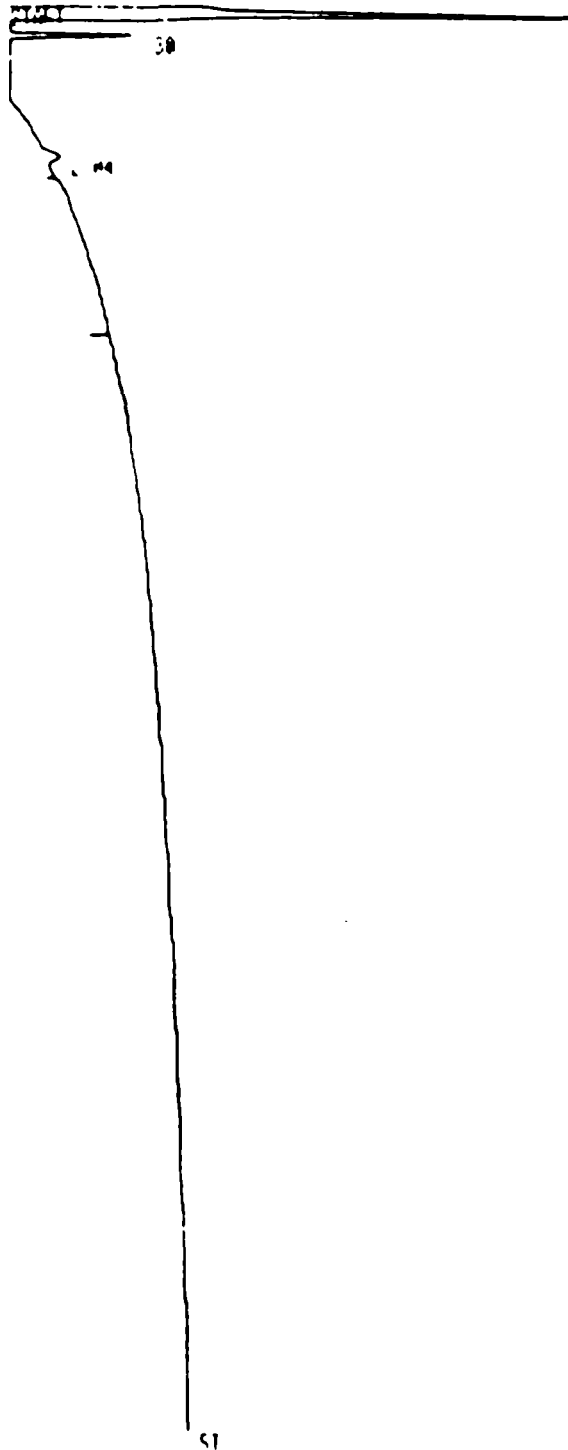
FILE # 51
ID 46350-10328
NO RUN PEAKS STORED

5-14-83

General Testing Laboratories, Inc.
1517 Walnut St.
Kansas City, MO 64108

10 46350-10329

Report No. 46350
May 16, 1983



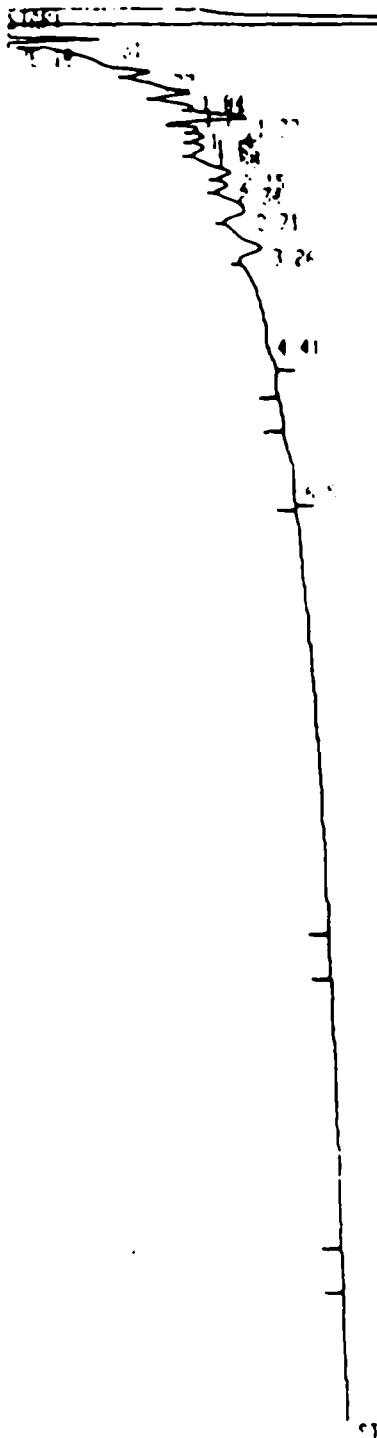
10 46350-10329
NO FILM PLAYS STORED

G.C. 06152
344
5-16 0.3 37D

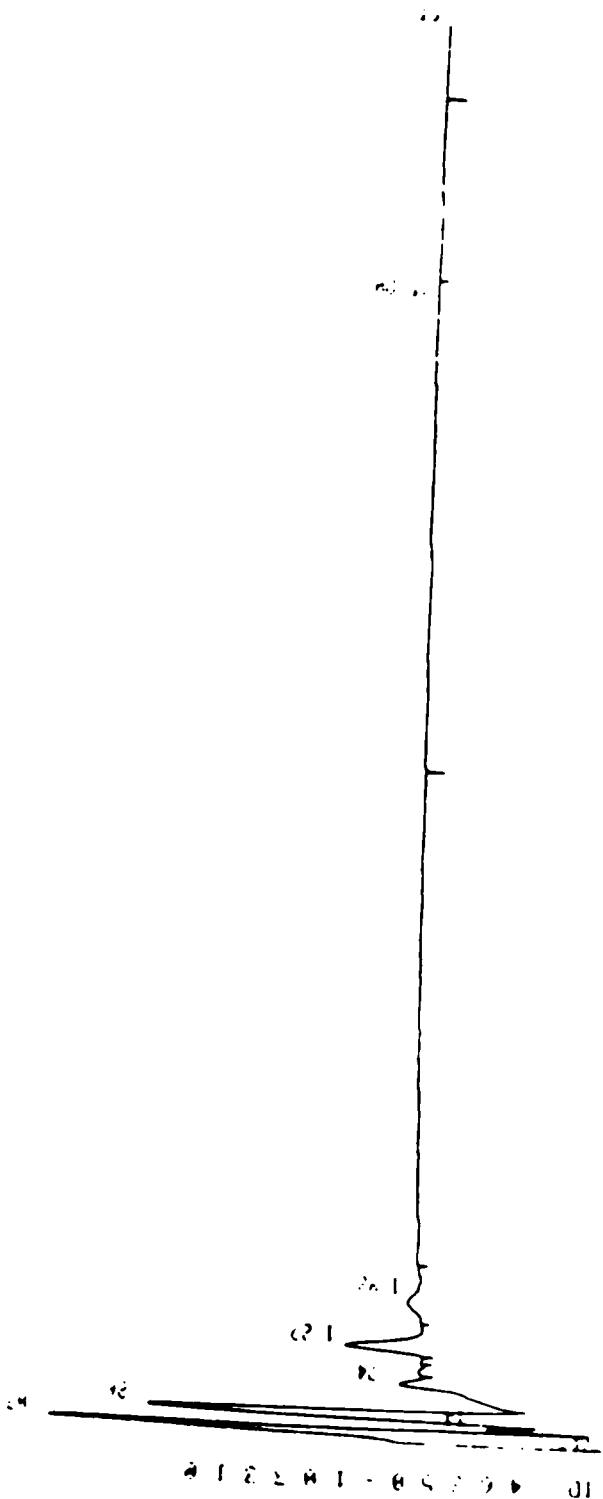
General Testing Laboratories, Inc.
1517 Walnut St.
Kansas City, MO 64108

10 4 0 0 0 0 1 0 3 3 0 0

Report No. 46350
May 16, 1983



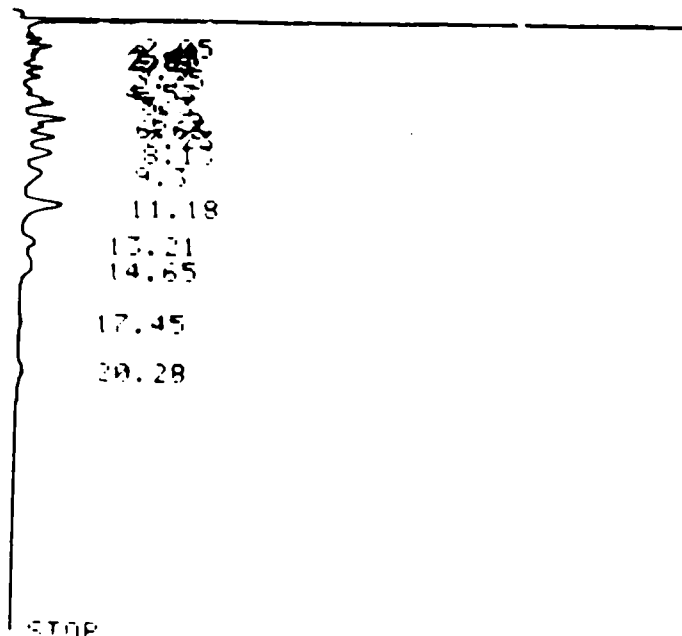
NO. 4 104
10 4000 10000
NO. 4000 10000



6-00153
No. 2485
5-8-83

General Testing Laboratories, Inc.
1517 Walnut St.
Kansas City, MO 64108
Report No. 46350
May 16, 1983

0.1 PPM 1260
 START 05.10.23.16.



C-R18
 SMPL # 00
 FILE # 1
 REPT # 90
 METHOD 41

#	NAME	TIME	CONC	MK	AREA
0		2.05	0.9434		12732
0		2.41	0.6078		8203
0		2.65	0.5233		7062
0		2.81	0.5888	V	7946
0		3.3	2.3723		32014
0		3.75	2.4948	V	33667
0		4.53	2.0141		27181
0		5.	3.1559	V	42588
0		5.3	5.9847	V	80763
0		6.2	9.2795	V	125227
0		6.63	4.3486	V	58684
0		7.23	8.9931	V	121362
0		8.13	10.5997	V	143043
0		9.3	10.7847	V	145539
0		11.18	16.7165	V	225589
0		13.21	5.9466		80249
0		14.65	8.9739	V	121102
0		17.45	1.5053		20314
0		20.28	4.166		56220
	TOTAL		99.9999		1349493

C-18
 SMPLE #
 FILE #
 RPT #
 METHOD

00
 1
 91
 41

NAME

TIME

2.39

2.63

2.8

3.27

3.74

4.49

4.96

5.26

6.14

6.57

7.17

8.07

9.22

11.07

13.11

14.47

17.27

20.11

TOTAL

CONC

0.3565

0.2736

0.3287

1.9005

2.2895

2.1836

3.1808

6.0735

9.1267

4.6114

9.066

10.9271

11.7589

16.9064

6.27

8.9423

1.8234

4.38

MR

V

V

V

V

V

V

V

V

V

V

V

V

V

V

V

V

V

V

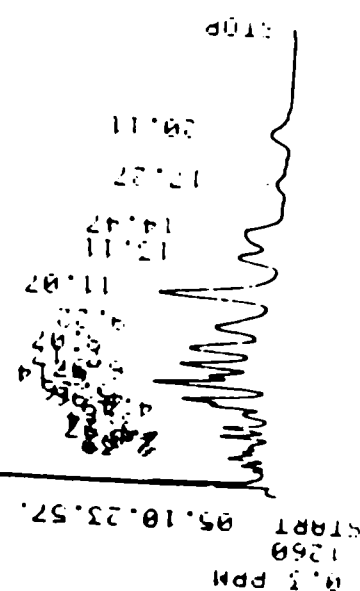
V

V

V

V

AREA
 14094
 10815
 12994
 75122
 90498
 86312
 125726
 249068
 360749
 182273
 358350
 431913
 448981
 668254
 247835
 353462
 72076
 173130
 3952658



LUCK

0.00 UG S.NO 71013042
ONE TIME
7.5604 GM
START 05.12.15.23.

5.73
5.73
5.69

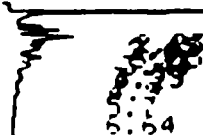
STOP

C-R18
SMPL # 00
FILE # 1
REPT # 2
METHOD 41

#	NAME	TIME	CONC	MK	AREA
0		2.25	8.3021		12713
0		2.47	8.0206		12282
0		2.62	9.6009	V	14702
0		3.07	23.5672		36089
0		3.46	19.5963	V	30008
0		4.03	5.9395		9095
0		4.25	6.9144	V	10588
0		4.92	6.7457		10329
0		5.72	6.971		10675
0		6.69	4.3418		6648
	TOTAL		99.9999		153134

0.0009 mg/100cm²

NO 2 NO 10
START 05.12.15.49. 5.0102



STOP

C-RIB
SMPL # 00
FILE # 1
REPT # 3
METHOD 41

#	NAME	TIME	CONC	MK	AREA
0		2.23	10.2173		14490
0		2.45	9.332		13234
0		2.6	12.0204	V	17047
0		3.05	26.1738		37120
0		3.44	20.1057	V	28514
0		3.99	5.9356		8418
0		4.23	6.2649	V	8885
0		4.9	5.1449		7296
0		5.7	4.8049		6814
TOTAL			99.9999		141822

0.0056 mg/mcm²

NO 3 INTERNEEN
5.9197 GM
START 05.12.10.89.

12100.0
STOP
6:57
6:58
6:59
7:00

C-R18
SMPL # 00
FILE # 1
REPT # 4
METHOD 41

#	NAME	TIME
0		2.21
0		2.41
0		2.56
0		3.01
0		3.35
0		3.96
0		4.17
0		4.92
0		5.66
0		6.57
TOTAL		

CUNC
7.4572
6.5431
10.8002
30.5398
20.1818
4.6177
6.7119
4.6961
5.2538
3.1918
99.9999

NR
V
V
V
V
V
V
V
V
V
V

HEH
38257
33567
55407
156676
103538
23690
34464
24092
26953
16375
513024
0.0000 g/mcm

HQ 4 DP784289
5.0523 GM
START 05.12.16.24.

STOP

6:56
6:56
6:56

ISCA CONFIDENTIAL
BUSINESS INFORMATION
DOES NOT CONTAIN NATIONAL
SECURITY INFORMATION E.O. 12958

T-PIB
SAMPL #
FILE #
REPT #
METHOD

00
1
5
41

NAME

TIME

CONC

MX

AREA

0
0
0
0
0
0
0
0
0
0
0
TOTAL

2.21
2.42
2.57
2.61
3.38
3.95
4.19
4.91
5.67
6.56
100.

V
V
V
V
V
V
V
V
V
V
V

15656
12578
16837
52557
36906
10481
14434
10082
11565
7375
188476

.00071 mg/m³/m³

RECORD OF
COMMUNICATION

☐ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☐ CONFERENCE
☒ OTHER (SPECIFY)

TO

File

(Record of item checked above)

FROM:

Stephen Busch

DATE

5/12/83

TIME

SUBJECT

PCB Treatment Inc. Capac. Demo.

SUMMARY OF COMMUNICATION

field sheets

CONCLUSIONS, ACTION TAKEN OR REQUIRED

INFORMATION COPIES

TO:

DB 5/12/83

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY - REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO. _____ SURVEY LEADER Busch STORET NO. _____

DESCRIPTION PCB Treatment Inc - Capacitor Process

Batch #1 1 v. de-g cycle

OTAS SAMPLE DATA

FLOW	TEMP °C	PH	DO	TOTAL COLI	ON A BREAST	OTHER	OTHER
<input type="checkbox"/> 00010 (OPM)	AM	WATER					
<input type="checkbox"/> 00001 (CFU)	00010	00010					

COLLECTION DATE 83 05 12 TIME 1505 SAMPLE NAME CODE 793 LAB NO AC 5910

COLLECTION DATE 83 05 12 TIME 1505 SAMPLE NAME CODE 793 LAB NO AC 5910

COLLECTION DATE 83 05 12 TIME 1505 SAMPLE NAME CODE 793 LAB NO AC 5910

COLLECTION DATE 83 05 12 TIME 1505 SAMPLE NAME CODE 793 LAB NO AC 5910

COMPOSITE SAMPLE DATA

BEGIN DATE 83 05 12 TIME 1505 LAB NO AC 5910

END DATE 83 05 12 TIME 1505 EQUIPMENT CODE _____

FLOW RATE 10010 MGD 10010 1000 L OF GAL DURING COMPOSITE PERIOD SAMPLE NAME CODE _____

WATER CHEMISTRY

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY		ANALYSIS
			MOBILE	REGION	
<u>1st jar</u>	<u>blue</u>	<u>none</u>		<input checked="" type="checkbox"/>	<u>PCB</u>

CONTACT _____ SAMPLE ☐ YES ☐ NO

REMARKS _____ SPLIT ☐ YES ☐ NO

expect low conc

08B5/12/83

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY - REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO. _____ SURVEY LEADER Busch STORET NO. _____
DESCRIPTION PCB Treatment, Inc Capacitor Process
Batch #2 1 v de-g cycle

GRAB SAMPLE DATA

FLOW	TIME	PH	DO	TOTAL CO.	ON A BEIGHT	OTHER	OTHER
<input type="checkbox"/> DEPTH (FEET)	DATE	WATER					
COLLECTION DATE	YR <u>83</u> MO <u>05</u> DAY <u>12</u>	TIME <u>1520</u>	SAMPLER NAME CODE <u>783</u>	LAB NO <u>AC 5911</u>			
COLLECTION DATE	YR _____ MO _____ DAY _____	TIME _____	SAMPLER NAME CODE _____	LAB NO _____			
COLLECTION DATE	YR _____ MO _____ DAY _____	TIME _____	SAMPLER NAME CODE _____	LAB NO _____			
COLLECTION DATE	YR _____ MO _____ DAY _____	TIME _____	SAMPLER NAME CODE _____	LAB NO _____			

COMPOSITE SAMPLE DATA

BEGIN DATE YR _____ MO _____ DAY _____ TIME _____ LAB NO _____
END DATE YR _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____
FLOW RATE _____ MOD _____ 1000 L OF GAL DURING COMPOSITE PERIOD SAMPLER NAME CODE _____

WATER CHEMISTRY

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY		ANALYSES
			MOBILE	REGION	

CONTACT _____ SAMPLE ☐ YES
SPLIT ☐ NO

REMARKS _____

expect very low PCB conc.

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO. _____ SURVEY LEADER Busch STORET NO. _____

DESCRIPTION PCB Treatment Inc Capacitor Process
Batch #1 2 V O G cycles

DETAILED SAMPLE DATA

FLOW	TEMP °C	pH	DO	TOTAL SOL	ON & OFF	OTHER	OTHER
<input type="checkbox"/> DOGS (OPM)	AIR DOGS	WATER DOGS					
<input type="checkbox"/> DOGS (TSS)							

COLLECTION DATE TO 83 MO 05 DAY 12 TIME 1530 SAMPLE NAME CODE 783 LAB NO AC 59 12

COLLECTION DATE TO _____ MO _____ DAY _____ TIME _____ SAMPLE NAME CODE _____ LAB NO _____

COLLECTION DATE TO _____ MO _____ DAY _____ TIME _____ SAMPLE NAME CODE _____ LAB NO _____

COLLECTION DATE TO _____ MO _____ DAY _____ TIME _____ SAMPLE NAME CODE _____ LAB NO _____

COMPOSITE SAMPLE DATA

BEGIN DATE TO _____ MO _____ DAY _____ TIME _____ LAB NO _____

END DATE TO _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____

FLOW RATE _____ MOD _____ 100% OF GAL DURING COMPOSITE PERIOD _____ SAMPLE NAME CODE _____

WATER CHEMISTRY

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY		ANALYSES
			MOBILE	REGION	
<u>1pt jar</u>	<u>blue</u>	<u>none</u>		<u>J</u>	<u>PCB</u>

CONTACT _____

REMARKS _____

expected very low
PCB conc.

ENVIRONMENTAL PROTECTION AGENCY REGION VII

STATION IDENTIFICATION

SURVEY NO. _____ SURVEY LEADER Busch _____ STORET NO. _____

DESCRIPTION PCB Treatment Inc Cap. Process

[illegible]

BEGIN DATE 18 _____ MO _____ DAY _____ TIME _____ LAB NO _____
 END DATE 18 _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____
 FLOW RATE _____ MGD _____ 1000 L OF GAS DURING
 18010 18017 COMPOSITE PERIOD SAMPLE NAME CODE _____

[illegible]

CONTACT _____

SAMPLE ☐ YES
SPILL ☐ NO

REMARKS: Control (not "exposed" to PCB) field blank

Very low PCB conc. expected

FIELD SHEET
ENVIRONMENTAL PROTECTION AGENCY - REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION
 SURVEY NO. _____ SURVEY LEADER Busch STORET NO. _____
 DESCRIPTION PCB Treatment, Inc
Batch # 2 2 VOG

REAL TIME DATA

FLOW	TEMP °C	PH	DO	TOTAL CO ₂	ON & GREASE	OTHER	OTHER
<input type="checkbox"/> GROSS (GPM)	AM	WATER					
<input type="checkbox"/> GROSS (CFS)	DOOR	DOOR					

COLLECTION DATE TO 83 MO 05 DAY 12 TIME 1545 SAMPLER NAME CODE 783 LAB NO AC5714

COLLECTION DATE TO _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE TO _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COLLECTION DATE TO _____ MO _____ DAY _____ TIME _____ SAMPLER NAME CODE _____ LAB NO _____

COMPOSITE SAMPLE DATA

BEGIN DATE TO _____ MO _____ DAY _____ TIME _____ LAB NO _____

END DATE TO _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____

FLOW RATE _____ MGD _____ 1000 L OF GAL DURING COMPOSITE PERIOD _____ SAMPLE NAME CODE _____

WATER CHEMISTRY

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY		ANALYSIS
			MOBILE	REGION	
<u>1 pt jar</u>	<u>blue</u>	<u>none</u>		<input checked="" type="checkbox"/>	<u>PCB</u>

LAB NO AC5714

CONTACT _____ SAMPLE ☐ YES SPLIT ☐ NO _____

REMARKS expected PCB conc - very low

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE 5-3-83

SUBJECT Transmittal of Laboratory Data

EPA-ARWM/PMTS

FROM Charles P. Hensley CPH
Chief, Laboratory Branch, ENSV

MAY 05 1983

TO Steve Busch

Region VII K.C., MO

Analyses have been completed for the following activities and the data results are attached.

Activity No.	Description
AC 59	PCB Treatment, Inc.
	(complete transmittal)

Attachments

cc: Data Files

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY - REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65111

STATION IDENTIFICATION

SURVEY NO. _____ SURVEY LEADER Busch STATION NO. _____

DESCRIPTION PCB Treatment, Inc Before

WATER SAMPLE DATA

FLOW	TEMP °C	PH	DO	TOTAL COLI	ON & GREASE	OTHER	OTR
<input type="checkbox"/> 00010 (GPM)	AIR 00020	WATER 00010					
COLLECTION DATE		YE <u>83</u>	MO <u>02</u>	DAY <u>28</u>	TIME <u>1220</u>	SAMPLER NAME CODE <u>783</u>	LAB NO <u>AC590</u>
			DO-000				

COLLECTION DATE	YE	MO	DAY	TIME	SAMPLER NAME CODE	LAB NO

COLLECTION DATE	YE	MO	DAY	TIME	SAMPLER NAME CODE	LAB NO

COLLECTION DATE	YE	MO	DAY	TIME	SAMPLER NAME CODE	LAB NO

COMPOSITE SAMPLE DATA

BEGIN DATE	YE	MO	DAY	TIME	LAB NO
END DATE	YE	MO	DAY	TIME	EQUIPMENT CODE
FLOW RATE	10010	MOD	10017	1000 L OF GAL DURING COMPOSITE PERIOD	SAMPLER NAME CODE

WATER CHEMISTRY

SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY		ANALYSIS
			MOBILE	REGION	
pt jar & filter					
paper	blue	none		✓	PCB

CONTACT	SAMPLE <input type="checkbox"/> YES	SPLIT <input type="checkbox"/> NO
REMARKS		

Very High PCB level

FIELD SHEET
ENVIRONMENTAL PROTECTION AGENCY - REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION	
SURVEY NO. _____	SURVEY LEADER <u>Busch</u> STORET NO. _____
DESCRIPTION <u>PCB Treatment, Inc Initial Rinse</u>	

ORIGINAL SAMPLE DATA							
FLOW	TEMP °C	PH	DO	TOTAL COLI	ON & GREASE	OTHER	OTHER
<input type="checkbox"/> 00010 (BPM)	AIR 00010	WATER 00010					
<input type="checkbox"/> 00001 (CFS)							
COLLECTION DATE		YE <u>83</u> MO <u>02</u> DAY <u>28</u>	TIME <u>1230</u>	SAMPLE NAME CODE <u>7P3</u>		LAB NO <u>AC5901</u>	
		00400					
COLLECTION DATE		YE _____ MO _____ DAY _____	TIME _____	SAMPLE NAME CODE _____		LAB NO _____	
COLLECTION DATE		YE _____ MO _____ DAY _____	TIME _____	SAMPLE NAME CODE _____		LAB NO _____	
COLLECTION DATE		YE _____ MO _____ DAY _____	TIME _____	SAMPLE NAME CODE _____		LAB NO _____	

COMPOSITE SAMPLE DATA			
BEGIN DATE		YE _____ MO _____ DAY _____	TIME _____
END DATE		YE _____ MO _____ DAY _____	TIME _____
FLOW RATE	MOF	1000 L OF GAL DURING COMPOSITE PERIOD	
<u>10050</u>	<u>10017</u>		
		EQUIPMENT CODE _____	
		SAMPLE NAME CODE _____	

WATER CHEMISTRY				LABORATORY		LAB NO <u>AC5901</u>
SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	MOIST	REGION	ANALYSIS	
<u>pt. jar and</u>						
<u>filter paper</u>	<u>blue</u>	<u>none</u>		<u>✓</u>	<u>PCB</u>	

CONTACT _____	SAMPLE <input type="checkbox"/> YES SPLIT <input type="checkbox"/> NO
REMARKS <u>Moderate to High Viscous oil still</u> <u>Potentially High visible</u>	

ENVIRONMENTAL PROTECTION AGENCY - REGION VII

STATION IDENTIFICATION

SURVEY NO. _____ SURVEY LEADER Busch STORER NO. _____

DESCRIPTION PCB Treatment, Inc Final Rinse

01A SAMPLE DATA							
Flow	Time	Temp	PH	DO	FECAI COLI	On a Bait	Other
<input type="checkbox"/> 00010 (OPR)	AM	WATER					
<input type="checkbox"/> 00001 (CFST)	00010	00010					
COLLECTION DATE		YS <u>83</u>	MO <u>02</u>	DAY <u>28</u>	TIME <u>1240</u>	SAMPLE NAME CODE <u>283</u>	LAB NO <u>AC 5902</u>
COLLECTION DATE		YS _____	MO _____	DAY _____	TIME _____	SAMPLE NAME CODE _____	LAB NO _____
COLLECTION DATE		YS _____	MO _____	DAY _____	TIME _____	SAMPLE NAME CODE _____	LAB NO _____
COLLECTION DATE		YS _____	MO _____	DAY _____	TIME _____	SAMPLE NAME CODE _____	LAB NO _____

COMPOSITE SAMPLE DATA

SIGN DATE YE _____ MO _____ DAY _____ TIME _____ LAB NO _____

(MO DATE YE _____ MO _____ DAY _____ TIME _____ EQUIPMENT CODE _____

FLOW RATE _____ MOD _____ 1000 L OF BAL DURING
10010 10011 COMPOSITE PERIOD SAMPLE NAME CODE _____

[illegible]

CONTACT _____ SAMPLE ☐ YES
SPLIT ☐ NO _____

REMARKS should be low PCB level
however visual residue observed

FIPID SHEET

ENVIRONMENTAL PROTECTION AGENCY - REGION VII
25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION

SURVEY NO. _____ MONITOR LABEL Busch STATION NO. _____
DESCRIPTION PCB Treatment Inscr - Control

GLOBAL SAMPLE DATA

DATE	TIME	WIND	WAVE	TEMP	REL. HUM.	SEA STATE	OTHER
000000	0000	0000	0000	0000	0000	0000	0000

COLLECTION DATA

DATE	TIME	WIND	WAVE	TEMP	REL. HUM.	SEA STATE	OTHER
83	02	28	1210	783	NO	AC5903	

COLLECTION DATA

DATE	TIME	WIND	WAVE	TEMP	REL. HUM.	SEA STATE	OTHER

COLLECTION DATA

DATE	TIME	WIND	WAVE	TEMP	REL. HUM.	SEA STATE	OTHER

COLLECTION DATA

DATE	TIME	WIND	WAVE	TEMP	REL. HUM.	SEA STATE	OTHER

COMPOSITE SAMPLE DATA

DATE	TIME	WIND	WAVE	TEMP	REL. HUM.	SEA STATE	OTHER
83	02	28	1210	783	NO	AC5903	

WATER CHEMISTRY

SAMPLE CONTAINER	LAB COLOR	PRESERVATIVE	LABORATORY	LAB NO
pt jar seal				
filter paper	blue	none		

PCB

CONTACT

SIGNATURE

Low PCB content

FIELD SHEET
ENVIRONMENTAL PROTECTION AGENCY - REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION	
SURVEY NO. _____	SURVEY LEADER <u>Busch</u> STORET NO. _____
DESCRIPTION <u>PCB Treatment, Inc. Final Rinse</u>	

GRAB SAMPLE DATA							
Flow	Temp	PH	DO	TOTAL COL.	On a Street	Other	Other
<input type="checkbox"/> 00010 (H2O2)	AM 00010	WATER 00010					
<input type="checkbox"/> 00011 (H2S)							
COLLECTION DATE	YE <u>83</u>	MO <u>02</u>	DAY <u>28</u>	TIME <u>1250</u>	SAMPLE NAME CODE <u>783</u>	LAB NO <u>AC5904</u>	
			00400				
COLLECTION DATE YE _____ MO _____ DAY _____ TIME _____ SAMPLE NAME CODE _____ LAB NO _____							
COLLECTION DATE YE _____ MO _____ DAY _____ TIME _____ SAMPLE NAME CODE _____ LAB NO _____							
COLLECTION DATE YE _____ MO _____ DAY _____ TIME _____ SAMPLE NAME CODE _____ LAB NO _____							

COMPOSITE SAMPLE DATA			
BEGIN DATE	YE _____ MO _____ DAY _____	TIME _____	LAB NO _____
END DATE	YE _____ MO _____ DAY _____	TIME _____	TOURNAMENT CODE _____
FLOW RATE	10010	MOD 10011	1000 L OF SAL DURING COMPOSITE PERIOD
		SAMPLE NAME CODE _____	

WATER CHEMISTRY				LABORATORY		LAB NO <u>AC5904</u>
SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	MOBILE	REGION	ANALYSIS	
1pt jar and filter paper	blue	none		✓	PCB	

CONTACT _____	SAMPLE <input type="checkbox"/> YES SPLIT <input type="checkbox"/> NO
REMARKS: <u>Should be low PCB content, some residue visible, may be solvent residue</u>	

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE March 30, 1983

SUBJECT PCB Treatment, Inc.

FROM Robert L. Greenall *RLG*
Chemist, Organic Analysis Section, ENSV-LABO

TO Stephen P. Busch
Chemical Engineer, ARWH-WMBR

Activity: AC59

Analysis Type: PCB's

Date: March 18, 1983: Analyst: Robert L. Greenall

<u>Sample Number</u>	<u>Compounds</u>	<u>Quantity</u>
AC5900	PCB 1254	$1.2 \times 10^3 \text{ mg/100 cm}^2$
AC5901	PCB 1254	$3.3 \times 10^2 \text{ mg/100 cm}^2$
AC5902	PCB 1254	$1.0 \times 10^2 \text{ mg/100 cm}^2$
AC5903	PCB 1254	$8.9 \times 10^{-4} \text{ mg/100 cm}^2$
AC5904	PCB 1254	$6.6 \times 10^{-1} \text{ mg/100 cm}^2$
	PCB 1248	$3.4 \times 10^1 \text{ mg/100 cm}^2$

No other PCB compounds were detected

January 9, 1984

Mr. Glenn P. Sweeney
Director, Technical Services
Krause & Heil, Inc.
103 Galster Road
East Syracuse, New York 13057

Re: P.C.B. Treatment, Inc.

Dear Mr. Sweeney:

Responding to your inquiry, I have enclosed copies of letters I received from the EPA Region VII office in Kansas City pertaining to P.C.B. Treatment, Incorporated.

The July 5, 1983 letter from the Region VII Administrator to P.C.B. Treatment, Inc. allows the company to process PCB capacitors until February 1, 1984, limited by the three pages of conditions which accompany the letter. It is expected that this approval will be extended.

The October 6, 1983 letter from the Region VII Administrator to P.C.B. Treatment, Inc. allows the company to destroy mineral oil dielectric fluids contaminated with not more than 10,000 parts per million of PCBs. Three pages of conditions are enclosed with this letter as well.

I trust this material will answer your questions regarding the capability of P.C.B. Treatment, Inc. to dispose of PCBs. Please feel free to contact Mr. Stephen P. Busch of the Region VII office at 816 374-6531 if you have any questions.

Yours truly,

Gregory T. Halbert
Attorney
Office of Regional Counsel

EPA-ARWN/PMTS

Enclosures

cc: Mr. Stephen P. Busch

JAN 11 1984

Region VII K.C., MO

[illegible]

[illegible]



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
KANSAS CITY, MISSOURI

APR 18 1983

Mr. Bob Schnider
P.C.B. Treatment, Inc.
2100 Wyandotte
Kansas City, Missouri 64108

Dear Mr. Schnider:

This letter is to notify you that, due to the recent procedural amendment of the approval authority for PCB disposal facilities and guidance for obtaining an approval, your activities in this subject area may need to be modified somewhat. Changes, published in the March 30, 1983, Federal Register (enclosed), include granting approval authority to the Assistant Administrator for Pesticides and Toxic Substances. Thus, facilities which will be operated in more than one region should consider EPA's Office of Toxic Substances in Washington, D.C. as their primary contact for PCB disposal approval activities. Facilities which will be operated in only one region should still consider the Regional Office as the primary contact for disposal approvals. Also, the Regional Administrator will continue to have the authority to approve all research and development (R and D) on PCB disposal methods involving less than 500 pounds of material, regardless of whether the disposal facility will be operated in more than one region.

The procedure for obtaining a PCB disposal approval has been modified slightly. An approval request should contain the information specified on the (enclosed) proposed "Format for an Approval Request of a PCB Destruction Method" for those requests to be submitted to Region VII. For mobile facilities, contact the Office of Toxic Substances for an appropriate format.

If you have any questions, please contact Stephen P. Busch of my staff at (816) 374-6531.

Sincerely yours,


Robert L. Morby
Chief, Waste Management Branch
Air and Waste Management Division

Enclosures

P.C.B., Inc. of Missouri

(Ron) 612 484-2817

(Dan) 605 258-6284

Office
2100 WYANDOTT
KANSAS CITY, MISSOURI 64106
816-221-3660

April 14, 1983

City of Kansas City, Missouri
Mayor's Office
414 East 12th Street
Kansas City, Missouri 64106

Attn: Environmental Control

Gentlemen:

This letter is written notification to you and your office, that P.C.B. Treatment, Inc. 2100 Wyandotte, Kansas City, MO., has requested through the Regional Environmental Protection Agency office in Kansas City, Missouri, a demonstration and testing of their line process to destruct P.C.B. Contaminated Capacitors.

This demonstration will take place on our site at, 2100 Wyandotte Kansas City, Missouri, on or about May 11th or 12th, 1983 depending on confirmation from the E.P.A.

Sincerely,

P.C.B. TREATMENT, INC.

Jack Van Gundy

JVG:lvq

April 14, 1983

TO: Enviornmental Protection Agency
Region 7
324 e. 11th. St.
Kansas City Missouri

From: P.C.B. Treatment Inc.
2100 Wyandotte
Kansas City Missouri

Att: Mr Steve Bush

Changes and some modifications have been made in our line process to distrust capacitors. The most major change has been the installation of our degreasing unit. This unit uses 111 trychlorethlene and when heated creates a vapor cleaning process. Since you are well aware of our previous test results, we felt these changes were necessary.

We are again requesting a demonstration and testing from your office on May 11 or 12 at 1:00 P.M. and await confirmation from you on the exact day and time. Also please be advised that based on the revised regulations, a letter requesting permission to continue our testing and notification letters have been mailed to the state and local officials. Attached copies for your info.

Sincerely:

CC To: Mr Jack Van Gundy

Bob Schneider
Frank Zondca

ARWM

P.C.B., Inc. of Missouri

(Ron) 612 464-2817

(Dan) 805 256-6254

2100 WYANDOTTE
KANSAS CITY, MISSOURI 64108
816-221-3660

April 13, 1983

Environmental Protection Agency
Regional Administrator
324 East 11th
Kansas City, Missouri 64106

Attn: Document Control Office of P.C.B. Disposal

Gentlemen:

It is our understanding that based on the revised Federal Regulations, our permission for testing our line process to destruct capacitors will expire April 29, 1983. Further, it is necessary for us to request permission and to receive a permit if we wish to continue to test our process after April 29, 1983.

We are requesting at this time permission to continue to test our process to the point of certification from E.P.A. The quantity we wish to use for testing is approximately 1,500 lbs.

Briefly, our process consists of the following:

As in line operation where we drill and drain the capacitor prior to opening. Once drained, we make two cuts with a Startrite power hack saw, remove the core and place in containers to be shipped to an approved burn site. The case then travels by conveyor to a scrub station prior to being placed in our degreasing chamber. In the degreasing chamber we use III Trichlorethylene which is heated creating a vapor cleaning process. The case remains in this chamber approximately 20 minutes, then are removed and placed in our holding area awaiting test results.

If further information is needed by your office, please contact us as soon as possible, (221-3660).

Sincerely,

P.C.B. Treatment, Inc.

Jack Van Gundy

Jack Van Gundy

JVG:lvg

TSCA CONFIDENTIAL
BUSINESS INFORMATION

APR 14 1983

DOES NOT CONTAIN NATIONAL HAZARDOUS MATERIALS

DECLASSIFIED
10-32-8
ASP

Steve

Date 4/2/83

EPA-ARWM/PMTS

APR 05 1983

Region VII K.C., MO

Mr. Steve Bush
Environmental Protection Agency
Kansas City; Missouri

From: Bob Schneider / Frank Zondca
PCB Treatment
Kansas City Missouri

Mr. Bush

It is our understanding that we were unsuccessful in our initial testing to de-contaminate capacitors. We certainly appreciate your time and help during this testing and want to take this opportunity to thank you. Since then we have made several changes, some per your recommendation and feel we are ready for a second test from your office (EPA.).

We have set Monday April 11; 1983 for our second test and would prefer this test in the P.M., say between 1:00 and 2:00. If this date and time is not convenient for you please let us know as soon as possible.

Sincerely

Bob.

Bob Schneider & Frank Zondca

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE March 30, 1983

SUBJECT PCB Treatment, Inc.

FROM Robert L. Greenall *for*
Chemist, Organic Analysis Section, ENSV-LABOTO Stephen P. Busch
Chemical Engineer, ARWM-WMBR

Activity: AC59

Analysis Type: PCB's

Date: March 18, 1983: Analyst: Robert L. Greenall

<u>Sample Number</u>	<u>Compounds</u>	<u>Quantity</u>
AC5900	PCB 1254	$1.2 \times 10^3 \text{ mg/100 cm}^2$
AC5901	PCB 1254	$3.3 \times 10^2 \text{ mg/100 cm}^2$
AC5902	PCB 1254	$1.0 \times 10^2 \text{ mg/100 cm}^2$
AC5903	PCB 1254	$8.9 \times 10^{-4} \text{ mg/100 cm}^2$
AC5904	PCB 1254	$6.6 \times 10^{-2} \text{ mg/100 cm}^2$
	PCB 1248	$3.4 \times 10^1 \text{ mg/100 cm}^2$

No other PCB compounds were detected

EPA-ARWM/PMTS

APR 01 1983

Region VII K.C., MO

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY - REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION	
SURVEY NO. _____	SURVEY LEADER <u>Busch</u> STORET NO. _____
DESCRIPTION <u>PCB Treatment, Inc Before</u>	

GRAB SAMPLE DATA							
TYPE	TIME	DATE	TIME	TEMP. (°C)	ON & OFF	OTHER	OTHER
<input type="checkbox"/> SURFACE WATER	<input type="checkbox"/> WET	<input type="checkbox"/> WET	<input type="checkbox"/> WET	<input type="checkbox"/> WET	<input type="checkbox"/> WET	<input type="checkbox"/> WET	<input type="checkbox"/> WET
COLLECTION DATE	TO	MO	DAY	TIME	SAMPLE NAME CODE	LAB NO.	
COLLECTION DATE	TO	MO	DAY	TIME	SAMPLE NAME CODE	LAB NO.	
COLLECTION DATE	TO	MO	DAY	TIME	SAMPLE NAME CODE	LAB NO.	
COLLECTION DATE	TO	MO	DAY	TIME	SAMPLE NAME CODE	LAB NO.	

COMPOSITE SAMPLE DATA					
BEGIN DATE	TO	MO	DAY	TIME	LAB NO.
END DATE	TO	MO	DAY	TIME	EQUIPMENT CODE
FLOW RATE	MGD	1000 L OF GAL DURING COMPOSITE PERIOD	SAMPLE NAME CODE		

WATER CHEMISTRY				LABORATORY	LAB NO. <u>AC 5900</u>
SAMPLE CONTAINER	TAC COLOR	PRESERVATIVE	MOBILE	REGION	ANALYSIS
pt jar & filter					
paper	blue	none		✓	PCB

CONTACT _____	SAMPLE <input type="checkbox"/> YES SPLIT <input type="checkbox"/> NO
REMARKS _____	
Very High PCB level	

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY - REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION	
SURVEY NO. _____	SURVEY LEADER <u>Busch</u> STORET NO. _____
DESCRIPTION <u>PCB Treatment, Inc Initial Rinse</u>	

DATA SAMPLE DATA							
FLOW	TEMP °C	PH	DO	TOTAL COLI	ON & STRAIN	OTHER	OTHER
<input type="checkbox"/> 00059 (BPM)	AM	WATER					
<input type="checkbox"/> 00061 (CFB)	00070	00010					
COLLECTION DATE		YE <u>83</u>	MO <u>02</u>	DAY <u>28</u>	TIME <u>1230</u>	SAMPLE NAME CODE <u>283</u>	LAB NO <u>AC5901</u>
COLLECTION DATE		YE _____	MO _____	DAY _____	TIME _____	SAMPLE NAME CODE _____	LAB NO _____
COLLECTION DATE		YE _____	MO _____	DAY _____	TIME _____	SAMPLE NAME CODE _____	LAB NO _____
COLLECTION DATE		YE _____	MO _____	DAY _____	TIME _____	SAMPLE NAME CODE _____	LAB NO _____

COMPOSITE SAMPLE DATA			
BEGIN DATE	YE _____	MO _____	DAY _____
END DATE	YE _____	MO _____	DAY _____
FLOW RATE	10000	MGD	10000
1000 L OF GAL DURING COMPOSITE PERIOD		SAMPLE NAME CODE _____	

WATER CHEMISTRY				LABORATORY		LAB NO <u>AC5901</u>
SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	MOBILE	REGION	ANALYSIS	
pt. jar and filter paper	blue	none		✓	PCB	

CONTACT _____	SAMPLE <input type="checkbox"/> YES
REMARKS _____	SPLIT <input type="checkbox"/> NO
<u>Moderate to High Potentially High</u>	
<u>Viscous oil still visible</u>	

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY - REGION VII

SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION	
SURVEY NO. _____	SURVEY LEADER <u>Busch</u> STORET NO. _____
DESCRIPTION <u>PCB Treatment, Inc. Final Rinse 1</u>	

GRAB SAMPLE DATA							
FLOW	TEMP °C	PH	DO	TOTAL CO ₂	ON & OFF	OTHER	OTHER
<input type="checkbox"/> 00030 (GPM)	AIR 00030	WATER 00030					
<input type="checkbox"/> 00001 (CFS)							
COLLECTION DATE <u>83</u> <u>02</u> DAY <u>28</u> TIME <u>1240</u>		SAMPLE NAME CODE <u>283</u>		LAB NO. <u>AC 5902</u>			
COLLECTION DATE _____		SAMPLE NAME CODE _____		LAB NO. _____			
COLLECTION DATE _____		SAMPLE NAME CODE _____		LAB NO. _____			
COLLECTION DATE _____		SAMPLE NAME CODE _____		LAB NO. _____			

COMPOSITE SAMPLE DATA			
BEGIN DATE <u>83</u> <u>02</u> DAY <u>28</u> TIME <u>1240</u>	LAB NO. _____		
END DATE _____	EQUIPMENT CODE _____		
FLOW RATE _____	MOB _____	1000 L OF GAL DURING COMPOSITE PERIOD _____	SAMPLE NAME CODE _____

WATER CHEMISTRY				LABORATORY		LAB NO. <u>AC 5902</u>
SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	MOBILE	REGION	ANALYSES	
<u>pt jar and filter</u>						
<u>paper</u>						

CONTACT _____	SAMPLE <input type="checkbox"/> YES SPLIT <input type="checkbox"/> NO
REMARKS <u>should be low PCB level</u> <u>however visual residue observed</u>	

ENVIRONMENTAL PROTECTION AGENCY - REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

OM 11011

SECRET

~~PCB Treatment Inc. - Control~~

STATION IDENTIFICATION	SUBST NO	SUBST LABEL	STREET NO	DESCRIPTION
		Busch		PCB Treatment Inc. - Control

[illegible][illegible]

Qm	1003 1009%	1001	100	0%	01	1103 1001 101103
001	011 000 01					

On	(00) 1000	1011	100	00	0.	(100 1001100)
001	01100001					

On	1003 1000	1001	100	On	21	1178 40 131103
001	0110001					

COMPOSITE SAMPLE DATA							

_____ MONTH _____ DAY _____ MO

_____ MONTH _____ DAY _____ MO

LOW BALT	WDB	1961	COMPOSITE 1960	SAMPLE NAME CODE

LAB NO	LABORATORY	MOBILE	RESIDENTIAL	LAB COLOR	SAMPLE CONTAINER
1035					

pt per sec					
------------	--	--	--	--	--

filter paper	blue	none	✓	FCB
--------------	------	------	---	-----

--	--	--	--	--	--

--	--	--	--	--	--

ON ☐ 11165
 (1) ☐ 110444

(131103)

Low PCB content

FIELD SHEET

ENVIRONMENTAL PROTECTION AGENCY - REGION VII
SURVEILLANCE AND ANALYSIS DIVISION, 25 FUNSTON ROAD, KANSAS CITY, KANSAS 65115

STATION IDENTIFICATION	
SURVEY NO. _____	SURVEY LEADER <u>Busch</u> STATION NO. _____
DESCRIPTION <u>PCB Treatment, Inc. Final Rinse 2</u>	

GRAB SAMPLE DATA							
FLOW	TEMP °C	PH	DO	TOTAL COC	ON & OFFSET	OTHER	OTHER
<input type="checkbox"/> 00001 (SPL)	AIR 00010	WATER 00010					
COLLECTION DATE	TO <u>83</u> MO <u>02</u> DAY <u>28</u>	TIME <u>1207</u>	SAMPLE NAME CODE <u>783</u>	LAB NO <u>AC5904</u>			
COLLECTION DATE	TO _____ MO _____ DAY _____	TIME _____	SAMPLE NAME CODE _____	LAB NO _____			
COLLECTION DATE	TO _____ MO _____ DAY _____	TIME _____	SAMPLE NAME CODE _____	LAB NO _____			
COLLECTION DATE	TO _____ MO _____ DAY _____	TIME _____	SAMPLE NAME CODE _____	LAB NO _____			

COMPOSITE SAMPLE DATA			
BEGIN DATE	TO _____ MO _____ DAY _____	TIME _____	LAB NO _____
END DATE	TO _____ MO _____ DAY _____	TIME _____	EQUIPMENT CODE _____
FLOW RATE	_____ GPD	1000 L OF GAL DURING COMPOSITE PERIOD	SAMPLE NAME CODE _____

WATER CHEMISTRY				LAB NO <u>AC5904</u>	
SAMPLE CONTAINER	TAG COLOR	PRESERVATIVE	LABORATORY		ANALYSIS
			MOBILE	SECTION	
1 pt jar and filter paper	blue	none		✓	PCB

CONTACT _____	SAMPLE <input type="checkbox"/> YES SPLIT <input type="checkbox"/> NO
REMARKS <u>Should be low PCB content, some residue visible, may be solvent residue</u>	

Date: 2/22/85
To: Steve Kusch
From: Bob Schneider

Subj: Necessary Paper work.

Steve.

Please find enclosed A Revised Copy of All Paper work.
I hope I have made the changes & additions per
your suggestions.

One thing that still concerns me even though our
Tests have come out good is that Kerosene is the
only cleaning agent we have used. This is due to
the fact that Mr. Van Gundy wants to Re-cycle for
our Race. Anyway I'm sorry it took me so
long to get this back to you.

Hope you find this acceptable.

THANKS

Sincerely

Bob Schneider

DECLASSIFIED

10-22-86

PSB

February 22, 1983

P. C. B. Treatment Inc.

Safety Check List:

1. Report any/all hazardous conditions immediately.
2. Importance of good housekeeping and cleaning of all spills.
3. Do not run in work areas or while at work.
4. Know locations of all exits, medical and emergency equipment.
5. Know fire and disaster procedures.
6. Smoking policy.
7. Never walk or stand on a skid or pallet, go around obstacles not over them.
8. Keep aisles clear at all times.
9. Wear proper clothing and safety protection appropriate for the job and approved by E.P.A. including shoes.
10. Lifting, bend knees, not back.
11. Keep unprotected sharp objects out of pockets.
12. Read and obey signs, tags, markers identifying hazardous areas.
13. Horse play is unacceptable behavior.
14. Report injuries immediately to your supervisor.
15. Report all spills of contaminated materials immediately.
16. Operate machinery only if authorized to do so.
17. All jewelry is to be removed while working on the process line or operating machinery/hand tools.
18. Use solvents/flammable liquids only for the purpose intended and authorized by your supervisor.
19. Do not climb, jump, or sit on conveyors.
20. Do not climb, jump, or sit on drums.
21. Never stand skids/pallets on edge or lean against any object.
22. Look in all directions when moving drums.

The above check list and guidelines are intended for the protection of all employees and to insure their well being while on the job.

Date_____

Signed by_____

Approved by_____

Start-up Procedures:

1. Lighting, heating, and ventilating checked, turned on and operating prior to start up.
2. All drain pans, containers, and drums are to be checked for fullness. If full, remove according to procedure.
3. All machine and conveyor guards are to be in position and secure.
4. Perform oil up and preventive maintenance on all power equipment.
5. Saw blade wash tank checked for fullness and to be sure it is operational.
6. Exhaust filter checked and in place, replace as necessary.
7. Exhaust blowers turned on and operational.
8. All air regulators checked and set at prescribed level.
9. Wash and scrub tank checked and filled to appropriate levels.
10. All safety equipment and materials in approved locations and in good repair.
11. All operating personnel must wear approved safety clothing which includes mask, glasses, gloves, jacket, pants, and boots
12. Check daily log book and all data sheets for supervisors approval and for filling in appropriate area.
13. Check sample blocks and test results for approved disposition of de-contaminated capacitor blocks.

End of Shift Shut Down and Clean-Up Procedures:

1. All drip pans are to be cleaned and wiped down.
2. All drains are to be shut off.
3. All drains containers checked for fullness and removed if full and replaced with empty container.
4. All full liquid drain containers are to be sealed, labelled, logged, and moved to out going area for shipment to approved destination. Approved by supervisor.
5. All spills are to be checked by your supervisor before clean-up is complete and to be sure all data has been recorded.
6. All hand tools are to be cleaned, wiped and placed in appropriate area.
7. Drill bits are to be washed with appropriate cleaning agent before storing.
8. Saw blade tank is to be cleaned and re-filled.
9. Saw table and work table to be washed and wiped down dry.
10. De-contaminated capacitor blocks are to be skided by number and moved to the storage area for holding. No blocks are to be moved from this area without the supervisors approval.
11. All floors and work platforms are to be swept and checked for spills.
12. All shop towels, materials, and liquids used in clean-up must be placed in approved containers for shipment to burn center.
13. All power is to be shut off at the breaker panel.
14. All exhaust fans are to be shut off.
15. All protective clothing must be removed in assigned area for storing and re-use.

Process Description:

To destruct PCB capacitors by the following method.

To record all data necessary for P.C.B. Treatment Inc and to comply with all EPA requirements.

To open and drain the capacitor by the use of air operated 1/2" drills.

To saw the top and bottom off the capacitor for core removal using a power hacksaw.

To clean/scrub the bottom and canister or block portion of the capacitor and de-contaminate to approved specifications (less than 2 ppm) for sale as scrap metal. Cleaning agent used is kerosene.

To place all other component into approved containers for shipment to an approved EPA burn center.

To re-cycle used kerosene through the PCB of K. C. reactor for re-use in the de-contaminating process of P.C.B. Treatment Inc..

See attached drawings and diagrams.

Equipment List:

Compressor: Will be stationed out side of the actual working area and the air piped in.

Air will be piped to the following line processes:

Drum opening area: To be used on impact wrench.

Puncture Area: To be used on 2 air drills and cyclinder operation.

Saw Area: For blade cleanig and flushing.

Ejection Area: For possible use on cyclinder type ejection.

Wash/Scrub Area: For spray/flush and clean-ups.

Conveyor and Power Conveyor:

All conveyors are set for gravity feed except for one 8 foot power conveyor used to elevate capacitors to correct work station heigth at the puncture area.

Air Drills: Will be 2 drills using approximately a 1/2" bit for puncturing the capacitor.

Saw: Used to make top and bottom cuts on the capacitor saw blade will have a flush and wipe unit installed for blade cleaning.

Wash and Scrub Tanks:

Are elevated and mounted on concrete blocks. Each tank will have a shut off and drain and will drain in to separate drums.

Used or waste cleaning solution will be moved in 55 gallon drums to the reactor area of PCB Inc. for re-cycling and re-use.

Drip Pans: Will be under the entire line operations.

Oil Containment:

The entire process line will be equipped with 6 inch high drip pan with 3 drains. All oil/liquids will drain into approved containers. The wash and scrub station with approved splash controls will drain in to 55 gallon drums for 1 cycle. See drawings. Wash and scrub tanks will be tested daily for contamination. At the point that kerosene reaches 2 ppm, the flush tank will be drained and re-filled with virgin kerosene. The spray and dry tanks will be cleaned at the end of each week's operations.

Emission Control and Vapor Management

The puncture and saw stations will be vented by overhead vents with blowers pulling air through 2 stage charcoal filters, and in to the outside atmosphere.
The wash and scrub station will be hooded and with a blower pulling the air through filters and outside.

Material Recovery:

It is the intent of P.C.B. Inc. to recover the following:

1. Canister or capacitor block and base, for sale as scrap metal.
2. Kerosene to be re-used in the wash and scrub process.

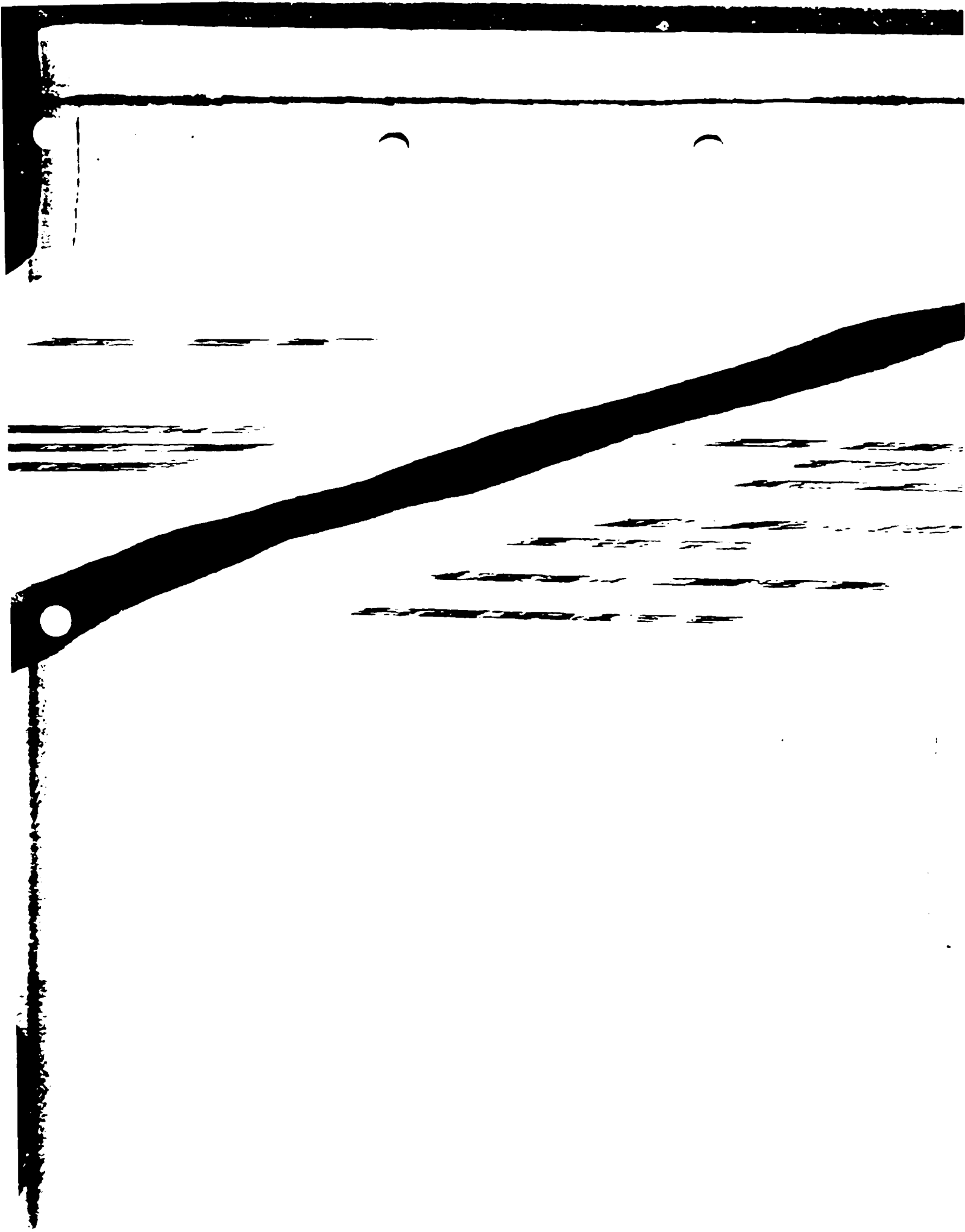
All other components and materials will be placed in approved containers (drums) sealed and stored for shipment to an EPA approved burn center.

Operating Conditions:

Operating conditions for the work areas including the process line are as follows:

1. Heating/air conditioning will be controlled to 65 degrees and will be shut down at the end of the normal work day.
2. All fire doors will be kept shut during normal operations, except during the loading of the staging area.
3. Fire extinguishers will be mounted in designated areas and checked per city code and ordinance.
4. Any and all spills will be cleaned immediately.
5. Process line will be cleaned at the end of each work shift and all clean up procedures followed.
6. All personnel working on the line will wear approved safety clothing i.e., boots, gloves, mask, etc.
7. Emission control, exhaust fans will be turned on at the start of each work day and left on during line operations. Filters will be checked and changed on a regular basis.

sample fails the test all 100 units must be re-worked.



Section 3. Sampling and Analysis

1. Selection: One sample per each 100 will be selected at the point the core is removed, marked, and tested for ppm prior to wash and scrub.

Balance of samples will be selected and tested after the dry station.

All paper work will accompany each sample.

See attached diagram and test sheet.

Section 4 Safety

Operating Safety:

1. The P.C.B. Inc. safety check list must be reviewed and signed by all personnel working in the process area.
2. All start up and clean up procedures are to be followed at all times.
3. No power equipment including hand tools are to be operated unless more than one employee is in the area.
4. All ventilating and exhaust equipment is to be on and operational prior to any capacitor is drained or sawed open.
5. All machinery guards must be in place.
6. All air regulators and lines to hand tools are to be set at the approved O.S.H.A. standard.
7. All spills are to be cleaned up immediately and reported to the supervisor.
8. Drill bits and saw blade should be monitored regularly to be sure heat level is controlled and cooling system is operational on the saw.
9. Do not force power saw--follow operating manual at all times.

Section 4 Safety

Operating Safety:

1. The P.C.B. Inc. safety check list must be reviewed and signed by all personnel working in the process area.
2. All start up and clean up procedures are to be followed at all times.
3. No power equipment including hand tools are to be operated unless more than one employee is in the area.
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5. All machinery guards must be in place.
6. All air regulators and lines to hand tools are to be set at the approved O.S.H.A. standard.
7. All spills are to be cleaned up immediately and reported to the supervisor.
8. Drill bits and saw blade should be monitored regularly to be sure heat level is controlled and cooling system is operational on the saw.
9. Do not force power saw--follow operating manual at all times.

Section 4 Safety:

Operator Safety.

1. All start-up, clean-up, and operating procedures are to be followed at all times.
2. All jewelry is to be removed prior to work.
3. Protective clothing must be worn at all times.
4. All operating personnel should obtain help in lifting weights heavier than 80 lbs.
5. All protective clothing is to be removed in the designated area prior to leaving the work area or the plant.
6. Never leave machines/hand tools running unattended.
7. Always be sure that more than one person is in the area before starting machinery.
8. Do not rest feet, hands, or other parts of the body on a machine or conveyor while running.
9. Do not start any conveyor or machine without first checking that all is clear.
10. Make certain all guards are in place before starting equipment and never make adjustments while machine is running.
11. Do not operate any piece of machinery or hand tool unless specifically authorized to do so.
12. Shut off all power equipment before cleaning or oiling.
13. Keep all rags in approved containers.
14. Good housekeeping is essential for safety. Return all tools and supplies to their proper location and place trash in approved receptacles. Keep floors clean of all liquids and objects.

Drum Overfill Control.

All drums used to hold capacitor components, fluids drained from capacitors and used cleaning agents will be equipped as follows.

1. Drain Stations

Bung hole type drums will be used at the drain station to drain all used kerosene into. Drum will not be filled to more than 90% of capacity, at which time the full drum will be removed and replaced with an empty drum. Drum fullness will be checked by an attached float control flag, allowing the operator to see when drum is full to capacity.

2. Core Ejection Station

See thru plexi-glass lid. Drum is visible from the saw station. Drum will hold the core, top and bottom of the capacitor case. Drum will be filled to capacity at which time the steel drum lid will be sealed to the drum, and labeled and stored in assigned storage area for shipment to the burn center.

3. Wash and Scrub Tank

Bung hole type drums will be used at the wash and scrub tank station to drain all used kerosene into. Drums will not be filled to more than 90% of capacity, at which time the full drum will be removed and replaced with an empty drum. Drum fullness will be checked by an attached float control flag allowing the operator to see when drum is full.

All drums will be checked hourly by the supervisor in charge. Again all spills and or possible overfill are to be cleaned up immediately and reported to the supervisor.

EFFECTIVE SAFETY PROGRAM

The objective is to increase the awareness of the individual front line Manager as to the role he must play in the establishment of a safe work environment, the development of safe work practices, and the maintenance of the safety program in his area.

There are a number of details that the supervisor needs to be aware of in order to be effective in promoting and maintaining a worthwhile program.

1. The supervisor should first know what the Safety Policy is and what it specifies as to his responsibility and authority.

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PCB Treatment, is vitally interested in accident prevention. It is interested because it involves the safety and well-being of all our people. In addition, accidents are indicative of wasteful and inefficient operations. They result in needless damage to property and equipment...which leads to interference with work plans, dissatisfaction, and loss of good will. It is the policy of the company to provide safe working conditions, equipment and facilities. This policy conforms to the requirements specified in the Occupational Safety and Health Act of 1970.

2. The supervisor should know what his total responsibilities are and how he is expected to integrate safety with them: which areas, operations, machines, personnel he directs; what is to be done about maintenance and repairs, working conditions, provisions of

guards, protective devices, and housekeeping responsibilities.

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- A. Department safety manual
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4. Instructing and training workers to be safety oriented. No matter how well safety is engineered into a Plant or a job, much of the safety of employees depends upon their own conduct. Some people work safely in dangerous surroundings whereas others have accidents on jobs that seem quite safe. Controlling people is, therefore, a necessary part of the accident prevention program.

5. Determining safe work methods for each job by identification of potential hazards.

JOB SAFETY ANALYSIS

- A. Select the job to be analyzed.
- B. Break the job down to be analyzed.
- C. Identify the hazards and potential accidents.
- D. Develop ways to eliminate hazards and potential accidents.

6. The supervisor should be aware of what safety devices and personal protective equipment are to be used on each job, and the procedures for making them available.

- A. Safety inspections
- B. Prompt correction

7. In the event of an accident, the supervisor must know who to contact. Emergency accident procedures are outlined in detail, in the safety manual. It is the responsibility of each supervisor to

be acquainted with these procedure and to keep the instructions within close accessability in the event of an accident.

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It is imperative that on-the-job injuries be reported as soon as they happen. Supervisors must insure that their work force be reminded of their responsibility to report accidents immediately. Injuries reported other than during the shift in which they occur will normally be treated as personal injury.

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A new employee training program includes:

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- * Periodic (at least monthly) safety meetings.
- * One-on-one training for special situations such as difficult jobs or slow learners.
- * Special training for emergency situations.
- * Job safety analysis and instruction.

If the supervisor is to teach things effectively, he must know them well.

Contingency Plan--Temporary Shut Down. Part 1.

Plan is based on the knowledge that the shut down is only temporary --not to exceed 45 days.

1. All on-site capacitor storage inventory will be inventoried within 24 hours of shut down date and all records up-dated. Action will be taken as necessary related to inventory results, i.e., movement of and or disposition with notification to capacitor owners.

2. All on-site capacitor components and records will be inventoried within 24 hours of shut-down date. Contingent on volumes and storage dates, action will be taken as necessary, i.e., hold in storage--ship to burn center.

3. On-site destruction facility:

- A. All records and logs will be locked up for safe keeping.
- B. All employees will be notified of shut down within 24 hours and a notice will be posted in the process area.
- C. Process facilities, i.e., conveyors, pans, drill, saw, et will be washed and cleaned thoroughly.
- D. Wash tanks will be drained and cleaned.
- E. All drain containers will be stored for re-use or shipment to an approved EPA burn center.
- F. All hand tools and safety equipment will be checked, stored, or prepared for shipment to the burn center.
- G. All capacitors not destroyed but in the process area will be returned to the storage area.
- H. All floors in the process area will be swept and mopped down thoroughly.

Contingency Plan--Temporary Shut Down.

Plan is based on the knowledge that the shut down will exceed 45 days but is not a permanent shut down.

1. Same as Part I except for the following:

All capacitor owners will be notified in writing within 48 hours of the shut down, reason for the shut down, expected start-up date (if available) and disposition, if any, of on site capacitors belonging to them.

2. Same as Part I except for the following:

All contaminated components will be prepared for shipment and shipped to an approved EPA burn center within 30 days of shut down. All decontaminated components, i.e., canister and bottom (scrap metal) in excess of 1000 lbs will be shipped and sold as scrap metal (locally).

3. Same as Part I

Process area to be locked up. Authorized personnel only will be admitted.

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3. Same as Part I

Process area to be locked up. Authorized personnel only will be admitted.

Contingency Plan--Emergency Shut Down. Part 3.

Based on the degree and or situation of the emergency, and the expected time frame of said emergency, which will be determined by the EPA, the following action will be taken:

1. Same as Part 1, or Part 2 of this contingency plan.
2. Immediate shut down:
 - A. All power to equipment must be shut off at the breaker box
 - B. All open drain containers must be closed, small drain containers are to be emptied into auxiliary stand by safety drum and drum sealed.
 - C. Wash/scrub tanks must be covered.
 - D. All doors must be closed.
 - E. All records and documentation will be placed in fire proof cabinet.
 - F. All employees will exit via the fire exit or contingent stairways.
3. Depending on the emergency and time allowed for shut down the following steps will be taken in addition to the above.
 - A. All capacitors on line but not open will be replaced in drums they were received in. All drums will be placed back in the storage area.
 - B. All components will be sealed in approved containers and removed from process area to shipping area.
 - C. All equipment and the process line will be cleaned according to normal clean up procedures.
 - D. All records and data will be picked up and removed from the area by the supervisor in charge.

Contingency Plan--Closure. Part 4.

1. All companies and or owners of contaminated capacitors with which PCB Treatment Inc. has done or is doing business with shall be notified in writing of PCB Treatment closure within 7 days of closure notice.

2. Closure will start within 72 hours of notice and will be complete and final within 45 days of notice. If longer, justification must be made in writing to the EPA.

3. PCB Treatment Inc. owners assure the EPA that funding is available for closure if and when necessary.

4. Closure Plan Outline:

EPA Facility I.D. No. MOD980633044

Owner Name: Jack Van Gundy

Address and Phone No. 2100 Wyandotte K.C., Mo 221-3660

Facility Address: 2100 Wyandotte K.C., Mo

1. Facility Conditions

A. General Information

1. Size of facility: 60,000 square feet

2. Storage facility: Drums

Capacity not to exceed 2500 at any one time.

3. Other facility on site. Reactor.

4. Waste Characterization.

A. Removed capacitor top.

B. Core of capacitor.

C. Contaminated oil (PCB) drained from capacitor.

D. Sludge from wash and scrub tank.

E. Contaminated cleaning agents--liquid.

B. Maximum amount of inventory ever on site including processing not to exceed 3000.

C. Schedule for final closure.

1. Final date waste accepted.

2. Dates for completion of inventory disposal.

A. Date all pre-processing completed.

B. Date all on-site disposal completed.

C. Date that all inventory has been disposed of on site.

D. Date that all inventory has been removed off-site.

3. Final date facility decontaminated.
4. Final date closure completed.
5. Total time required to close the facility.
6. Justification if closure is longer than 6 months.

2. Removing all inventory:

- A. Maximum amount of waste on-site in any stage of processing:
 1. Total amount of waste/residue in drums and number of drums will not exceed 1500 gallons and or 30 drums.
- B. Method and procedure for disposing or removing inventory.
 1. All non-processed capacitors will be shipped to an approved burn center and or land fill.
 2. All capacitor components, oil and sludge will be sealed in approved containers (drums) and shipped to an EPA approved burn center.

3. Decontaminating the Facility:

- A. All equipment and or facilities requiring cleaning.
Conveyors and drip pans--wash/scrub.
All hand tools--including air drills--wash/scrub.
Power saw--remove blade--wash/scrub.
Wash and scrub tanks and grates--wash/scrub.
Total work area--wash and scrub.
- B. All waste and residue will be put in drums, sealed and shipped to an approved burn center.
- C. All cleaning agents will be re-cycled through PCB Treatment Inc. reactor.

4. Closure certification:

- A. An estimated number of inspections by the certifying engineer anticipated during closure is as follows:
 1. Start of closure proceedings to verify inventory and all documentation.
 2. Once during inventory removal and when removal is complete.
 3. After facility has been decontaminated.

P.C.B., Inc. of Missouri

(Ron) 812 484-2817

(Dan) 803 258-8234

2100 WYANDOTTE
KANSAS CITY, MISSOURI 64108
816-221-3600

February 15, 1983

Mr. Marvin Fry
Environmental Protection Agency
324 East 11th
Kansas City, Missouri 64105

Dear Mr. Fry:

PCB Treatment, Inc., Kansas City, Missouri has completed the installation of their in-line process to destruct PCB Contaminated Capacitors. Preliminary tests have been run and we feel we are successful in the destruction of and in decontamination of the capacitor case for salvage.

This letter is an invitation to you and to Mr. Steve Bush to attend a demonstration of this process. We are also requesting at the same time that you make whatever test necessary and based on your test results, we are requesting certification of this process.

We recognize that you have a very busy schedule and for this reason are setting a tentative date of Monday, February 28th, 1983, 10:00 a.m., for this demonstration. At that time we will also supply you with a complete operation, safety and closure procedures.

Please confirm this date with us or let us know what date and time you would be available for this demonstration.

Sincerely,

Frank Zondca
Bob Schneider

FZ:lv

cc: Mr. Steve Bush

EPA-ARWM/PMTS

FEB 17 1983

Region VII K.C., MO

*John - 2:00 p.m. time
O.K.
- How about
taking Joe G.
on this one*

PCB Treatment
Capacitor Process info '83

2/2/83

Steve Bush
Enviromental Protection Agency
Kansas City Missouri

Steve;

Per our last conversation, I have put together a rough draft of our understanding of the required documentation and paper work for our operation. As we discussed, I am very new at this and certainly appreciate any help you can give me.

Please review at your earliest convience and note any additions and/or changes you feel are necessary.

Thanking you in advamce

Sincerely

Bob Schneider

Bob.

DECLASSIFIED
10-22-86
ASP

P. C. H. Treatment Inc.

Safety Check List:

1. Report any/all hazardous conditions immediately.
2. Importance of good housekeeping and cleaning of all spills.
3. Do not run in work areas or while at work.
4. Know locations of all exits, medical and emergency equipment.
5. Know fire and disaster procedures.
6. Smoking policy.
7. Never walk or stand on a skid or pallet, go around obstacles not over them.
8. Keep aisles clear at all times.
9. Wear proper clothing and safety protection appropriate for the job and approved by E.P.A. including shoes.
10. Lifting, bend knees, not back.
11. Keep unprotected sharp objects out of pockets.
12. Read and obey signs, tags, markers identifying hazardous areas.
13. Horse play is unacceptable behavior.
14. Report injuries immediately to your supervisor.
15. Report all spills of contaminated materials immediately.
16. Operate machinery only if authorized to do so.
17. All jewelry is to be removed while working on the process line or operating machinery/hand tools.
18. Use solvents/flammable liquids only for the purpose intended and authorized by your supervisor.
19. Do not climb, jump, or sit on conveyors.
20. Do not climb, jump, or sit on drums.
21. Never stand skids/pallets on edge or lean against any object.
22. Look in all directions when moving drums.

The above check list and guidelines are intended for the protection of all employees and to insure their well being while on the job.

Date_____

Signed by_____

Approved by_____

Start-up Procedures:

1. Lighting, heating, and ventilating checked, turned on and operating prior to start up.
2. All drain pans, containers, and drums are to be checked for fullness. If full, remove according to procedure.
3. All machine and conveyor guards are to be in position and secure.
4. Perform oil up and preventive maintenance on all power equipment.
5. Saw blade wash tank checked for fullness and to be sure it is operational.
6. Exhaust filter checked and in place, replace as necessary.
7. Exhaust blowers turned on and operational.
8. All air regulators checked and set at prescribed level.
9. Wash and scrub tank checked and filled to appropriate levels.
10. All safety equipment and materials in approved locations and in good repair.
11. All operating personnel must wear approved safety clothing which includes mask, glasses, gloves, jacket, pants, and boots
12. Check daily log book and all data sheets for supervisors approval and for filling in appropriate area.
13. Check sample blocks and test results for approved disposition of de-contaminated capacitor blocks.

End of Shift Shut Down and Clean-Up Procedures:

1. All drip pans are to be cleaned and wiped down.
2. All drains are to be shut off.
3. All drains containers checked for fullness and removed if full and replaced with empty container.
4. All full liquid drain containers are to be sealed, labelled, logged, and moved to out going area for shipment to approved destination. Approved by supervisor.
5. All spills are to be checked by your supervisor before clean-up is complete and to be sure all data has been recorded.
6. All hand tools are to be cleaned, wiped, and placed in appropriate area.
7. Drill bits are to be washed with appropriate cleaning agent before storing.
8. Saw blade tank is to be cleaned and re-filled.
9. Saw table and work table to be washed and wiped down dry.
10. De-contaminated capacitor blocks are to be skided by number and moved to the storage area for holding. No blocks are to be moved from this area without the supervisors approval.
11. All floors and work platforms are to be swept and checked for spills.
12. All shop towels, materials, and liquids used in clean-up must be placed in approved containers for shipment to burn center.
13. All power is to be shut off at the breaker panel.
14. All exhaust fans are to be shut off.
15. All protective clothing must be removed in assigned area for storing and re-use.

Process Description

To destruct PCB capacitors by the following method.

To record all data necessary for P.C.B. Treatment Inc and to comply with all EPA requirements.

To open and drain the capacitor by the use of air operated 1/2" drills.

To saw the top and bottom off the capacitor for core removal using a power hacksaw.

To clean/scrub the bottom and canister or block portion of the capacitor and de-contaminate to approved specifications (less than 2 ppm) for sale as scrap metal.

To place all other component into approved containers for shipment to an approved EPA burn center.

To re-cycle used cleaning agents through the PCB of K.C. reactor for re-use in the de-contaminating process of P.C.B. Treatment Inc..

See attached drawings and diagrams.

Equipment List.

Compressor: Will be stationed out side of the actual working area and the air piped in.

Air will be piped to the following line processes:

Drum opening area: To be used on impact wrench.

Puncture Area: To be used on 2 air drills and cyclinder operation.

Saw Area: For blade cleanig and flushing.

Ejection Area: For possible use on cyclinder type ejection.

Wash/Scrub Area: For spray/flush and clean-ups.

Conveyor and Power Conveyor:

All conveyors are set for gravity feed except for one 8 foot power conveyor used to elevate capacitors to correct work station heigth at the puncture area.

Air Drills: Will be 2 drills using approximately a 1/2" bit for puncturing the capacitor.

Saw: Used to make top and bottom cuts on the capacitor saw blade will have a flush and wipe unit installed for blade cleaning.

Wash and Scrub Tanks:

Are elevated and mounted on concrete blocks. Each tank will have a shut off and drain and will drain in to separate drums.

Used or waste cleaning solution will be moved in 55 gallon drums to the reactor area of PCB Inc. for re-cycling and re-use.

Drip Pans: Will be under the entire line operations.

Oil Containment:

The entire process line will be equipped with 6 inch high drip pan with 3 drains. All oil/liquids will drain into approved containers. The wash and scrub station with approved splash controls will drain in to 55 gallon drums for re-cycle.

See attached drawings.

Emission Control and Vapor Management

The puncture and saw stations will be vented by overhead vents with blowers pulling air through 2 stage charcoal filters, and in to the outside atmosphere.

The wash and scrub station will be hooded and with a blower pulling the air through filters and outside.

Material Recovery:

It is the intent of P.C.B. Inc. to recover the following:

1. Canister or capacitor block and base, for sale as scrap metal.
2. Cleaning agents to be re-used in the wash and scrub process.

All other components and materials will be placed in approved containers (drums) sealed and stored for shipment to an EPA approved burn center.

Operating Conditions:

Operating conditions for the work areas including the process line are as follows:

1. Heating/air conditioning will be controlled to 65 degrees and will be shut down at the end of the normal work day.
2. All fire doors will be kept shut during normal operations, except during the loading of the staging area.
3. Fire extinguishers will be mounted in designated areas and checked per city code and ordinance.
4. Any and all spills will be cleaned immediately.
5. Process line will be cleaned at the end of each work shift and all clean up procedures followed.
6. All personnel working on the line will wear approved safety clothing i.e., boots, gloves, mask, etc.
7. Emission control, exhaust fans will be turned on at the start of each work day and left on during line operations. Filters will be checked and changed on a regular basis.

Section 2. Process Chemistry

PCB Distribution: None

All contaminated fluids drained from capacitors will be drained into drums, sealed, recorded and stored for shipment to an approved EPA burn center. Storage not to exceed 45 days.

Side Reactors:

All spills will be cleaned immediately, recorded on the daily work logs, and reported as necessary. Any injury or illness occurring as a result of the normal operating conditions will receive immediate attention, recorded and reported in writing to EPA within 24 hours of the occurrence.

Re-Agents/Solvents:

Will be drained daily into drums, sealed, labelled, and recorded. Stored for shipping to PCB of K.C. for re-cycle and re-use.

Process Testing:

During the initial start up and line operation 27 units out of each 100 units opened and processed will be selected at random and tested with all data recorded. Each unit will be marked and stored for 24 hours awaiting test results.

Mass Balance:

All units opened will be stored in out going storage area for a 24 hour period awaiting test results. If test are accepted, units will be prepared for shipment. If tests are rejected that portion of production that was rejected will be re-worked through the scrub and wash station and re-treated. All units both accepted or rejected must be recorded and kept on file.

Once the approved cleaning and de-contaminating agents and methods are achieved the sample testing can be reduced to 12 units per each 100 units opened. In this situation if 1 sample fails the test all 100 units must be re-worked.

Section 3. Sampling and Analysis

1. Selection: One sample per each 100 will be selected at the point the core is removed, marked, and tested for ppm prior to wash and scrub.

Balance of samples will be selected and tested after the dry station.

All paper work will accompany each sample.

See attached diagram and test sheet.

Section 4: Safety

1. All start-up, operating, and clean up procedures are to be followed at all times.
2. Air regulators installed and operational.
3. Drip pans and splash guards under all conveyors and around drill and wash stations.
4. Exhaust system containing charcoal filters.
5. Guard rails on all conveyors.
6. Availability of approved safety equipment i.e., fire extinguisher, first aid kit, eye wash station, safety clothing.
7. All machinery guarded and guards in place.
8. All hand tools kept in designated areas, not on the floor.
9. Approved protective clothing provided and must be worn at all times.
10. Possible contaminated protective clothing must be removed in the prescribed area before leaving the work area or plant.

Section 4 Safety

Operating Safety:

1. The P.C.B. Inc. safety check list must be reviewed and signed by all personnel working in the process area.
2. All start up and clean up procedures are to be followed at all times.
3. No power equipment including hand tools are to be operated unless more than one employee is in the area.
4. All ventilating and exhaust equipment is to be on and operational prior to any capacitor is drained or sawed open.
5. All machinery guards must be in place.
6. All air regulators and lines to hand tools are to be set at the approved O.S.H.A. standard.
7. All spills are to be cleaned up immediately and reported to the supervisor.
8. Drill bits and saw blade should be monitored regularly to be sure heat level is controlled and cooling system is operational on the saw.
9. Do not force power saw--follow operating manual at all times.

Section 4 Safety

Operator Safety

1. All start-up, clean-up, and operating procedures are to be followed at all time..
2. All jewelry is to be removed prior to work.
3. Protective clothing must be worn at all times.
4. All operating personnel should obtain help in lifting weights heavier than 80 lbs.
5. All protective clothing is to be removed in the designated area prior to leaving the work area or the plant.
6. Never leave machines/hand tools running unattended.
7. Always be sure that more than one person is in the area before starting machinery.
8. Do not rest feet, hands, or other parts of the body on a machine or conveyor while running.
9. Do not start any conveyor or machine without first checking that all is clear.
10. Make certain all guards are in place before starting equipment and never make adjustments while machine is running.
11. Do not operate any piece of machinery or hand tool unless specifically authorized to do so.
12. Shut off all power equipment before cleaning or oiling.
13. Keep all rags in approved containers.
14. Good housekeeping is essential for safety. Return all tools and supplies to their proper location and place trash in approved receptacles. Keep floors clean of all liquids and objects.

Operating Procedure

Drums containing PCB capacitors will be moved from the storage area by lot and storage number on a daily basis. Drums will be placed in the staging area for opening. The drum will be unsealed and the capacitor unloaded.

At the loading area all data per capacitor will be logged in the daily work log, i.e., where from, date, etc. All capacitors will be manually loaded on the entrance conveyor. They will travel to the lift conveyor which is controlled at the puncture station.

Capacitor will be punctured both top and bottom simultaneously by a 1/2 inch air drill. Once the puncture occurs the capacitor will be stood up right at the drain station and allowed to drain for 4 minutes. Air may be applied as necessary for faster draining. From the drain station the capacitor will manually be placed in the saw fixture for sawing. Both the top and bottom of the capacitor will be cut off leaving the case (block) to go to the ejection station. The top of the capacitor will be placed in a drum for storage and shipment to the burn center. The Bottom will be placed on the conveyor to go to the wash station.

From the saw the case (block) will manually be placed into ejection fixture where the core is pressed out and placed into a drum for storage and shipment to the burn center. The case (block) is then put on the conveyor to the scrub/wash tanks.

At the scrub/wash station the case (block) will manually (small) hoisted (large) moved from the conveyor into the 1st dip tank. In the first dip tank the case (block) will be dipped and flushed 4 times, then moved to the second tank for spray/and or scrub. From the 2nd dip tank the case (block) will be placed over the third tank for drain and drying. Approximately 5 minutes.

Once dry the case (block) will then be manually placed on pallets for 24 hours (minimum) storage. If all sampling swab test show less than 2 ppm, (blocks) will then be released for disposition. Disposition will be salvage metal sale made locally.

A one percent A.O.Q.L. inspection plan will be used for the purposes of sample testing and will provide a 95 percent confidence level. All samplings will be made after the wash and scrub process has been completed.

See attached test sheet.

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Contingency Plan--Temporary Shut Down.

Plan is based on the knowledge that the shut down will exceed 45 days but is not a permanent shut down.

1. Same as Part I except for the following:

All capacitor owners will be notified in writing within 48 hours of the shut down, reason for the shut down, expected start-up date (if available) and disposition, if any, of on site capacitors belonging to them.

2. Same as Part I except for the following:

All contaminated components will be prepared for shipment and shipped to an approved EPA burn center within 30 days of shut down. All decontaminated components, i.e., canister and bottom (scrap metal) in excess of 1000 lbs will be shipped and sold as scrap metal (locally).

3. Same as Part I

Process area to be locked up. Authorized personnel only will be admitted.

Contingency Plan--Emergency Shut Down. Part 3.

Based on the degree and or situation of the emergency, and the expected time frame of said emergency, which will be determined by the EPA, the following action will be taken:

1. Same as Part 1, or Part 2 of this contingency plan.
2. Immediate shut down:
 - A. All power to equipment must be shut off at the breaker box
 - B. All open drain containers must be closed, small drain containers are to be emptied into auxiliary stand by safety drum and drum sealed.
 - C. Wash/scrub tanks must be covered.
 - D. All doors must be closed.
 - E. All records and documentation will be placed in fire proof cabinet.
 - F. All employees will exit via the fire exit or contingent stairways.
3. Depending on the emergency and time allowed for shut down the following steps will be taken in addition to the above.
 - A. All capacitors on line but not open will be replaced in drums they were received in. All drums will be placed back in the storage area.
 - B. All components will be sealed in approved containers and removed from process area to shipping area.
 - C. All equipment and the process line will be cleaned according to normal clean up procedures.
 - D. All records and data will be picked up and removed from the area by the supervisor in charge.

Contingency Plan--Closure. Part 4.

1. All companies and or owners of contaminated capacitors with which PCB Treatment Inc. has done or is doing business with shall be notified in writing of PCB Treatment closure within 7 days of closure notice.

2. Closure will start within 72 hours of notice and will be complete and final within 45 days of notice. If longer, justification must be made in writing to the EPA.

3. PCB Treatment Inc. owners assure the EPA that funding is available for closure if and when necessary.

4. Closure Plan Outline:

EPA Facility I.D. No.

Owner Name: Jack Van Gundy

Address and Phone No. 2100 Wyandotte K.C., Mo 221-3660

Facility Address: 2100 Wyandotte K.C., Mo

1. Facility Conditions

A. General Information

1. Size of facility: 60,000 square feet

2. Storage facility: Drums

Capacity not to exceed 2500 at any one time.

3. Other facility on site. Reactor.

4. Waste Characterization.

A. Removed capacitor top.

B. Core of capacitor.

C. Contaminated oil (PCB) drained from capacitor.

D. Sludge from wash and scrub tank.

E. Contaminated cleaning agents--liquid.

B. Maximum amount of inventory ever on site including processing not to exceed 3000.

C. Schedule for final closure.

1. Final date waste accepted.

2. Dates for completion of inventory disposal.

A. Date all pre-processing completed.

B. Date all on-site disposal completed.

C. Date that all inventory has been disposed of on site.

D. Date that all inventory has been removed off-site.

3. Final date facility decontaminated.
4. Final date closure completed.
5. Total time required to close the facility.
6. Justification if closure is longer than 6 months.

2. Removing all inventory:

- A. Maximum amount of waste on-site in any stage of processing:
 1. Total amount of waste/residue in drums and number of drums will not exceed 1500 gallons and or 30 drums.
- B. Method and procedure for disposing or removing inventory.
 1. All non-processed capacitors will be shipped to an approved burn center and or land fill.
 2. All capacitor components, oil and sludge will be sealed in approved containers (drums) and shipped to an EPA approved burn center.

3. Decontaminating the Facility:

- A. All equipment and or facilities requiring cleaning.

Conveyors and drip pans--wash/scrub.
All hand tools--including air drills--wash/scrub.
Power saw--remove blade--wash/scrub.
Wash and scrub tanks and grates--wash/scrub.
Total work area--wash and scrub.
- B. All waste and residue will be put in drums, sealed and shipped to an approved burn center.
- C. All cleaning agents will be re-cycled through PCB Treatment Inc. reactor.

4. Closure certification:

- A. An estimated number of inspections by the certifying engineer anticipated during closure is as follows:
 1. Start of closure proceedings to verify inventory and all documentation.
 2. Once during inventory removal and when removal is complete.
 3. After facility has been decontaminated.

ALL DATA VARIFIED BY: _____ DATE _____

TEST NO. _____

START DATE: ____/____/____.

CAPACITOR NO. _____

DATE REC. ____/____/____.

RECEIVED FROM: _____

METHOD USED TO OPEN. _____

TIME TO OPEN: _____

DISPOSITION OF::

CANISTOR: _____

CORE: _____

FLUID: _____

CANISTOR/BLOCK TEST:

CLEANING METHOD.

CLEANING AGENT.

CLEANING TIME.

	CLEANING METHOD.	CLEANING AGENT.	CLEANING TIME.
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____

TYPE OF TEST: _____

TESTED BY: _____

TEST DATE: ____/____/____ DATE TEST RESULTS BACK: ____/____/____

TEST RESULTS: METHOD. _____

AGENT. _____

ppm. _____

SAFETY:

PROCESS: _____

OPERATING: _____

OPERATOR: _____

COMMENTS: use reverse side for additional comments.

P.C.B.TREATMENT INC.

DAILY LOG.

MANIFEST NO. _____ DATE: _____

From storage rowe. _____ Storage Date. _____

Company From: _____

City: _____ State: _____

Number Of: _____

Weight/ Lbs. _____

Processed Quantity: (Number of Capacitors) _____

Comments: _____

DISPOSITION OF COMPONENTS:

	Drum Number:	Storage Date:	Shipped To:	Dat
Contaminated Liquid:	/	/		/

Core:	/	/		/
-------	---	---	--	---

Capacitor Top:	/	/		/
----------------	---	---	--	---

Cleaning Agents:	/	/		/
------------------	---	---	--	---

	/	/		/
--	---	---	--	---

	/	/		/
--	---	---	--	---

For Recovery;

Canister	/	/		/
----------	---	---	--	---

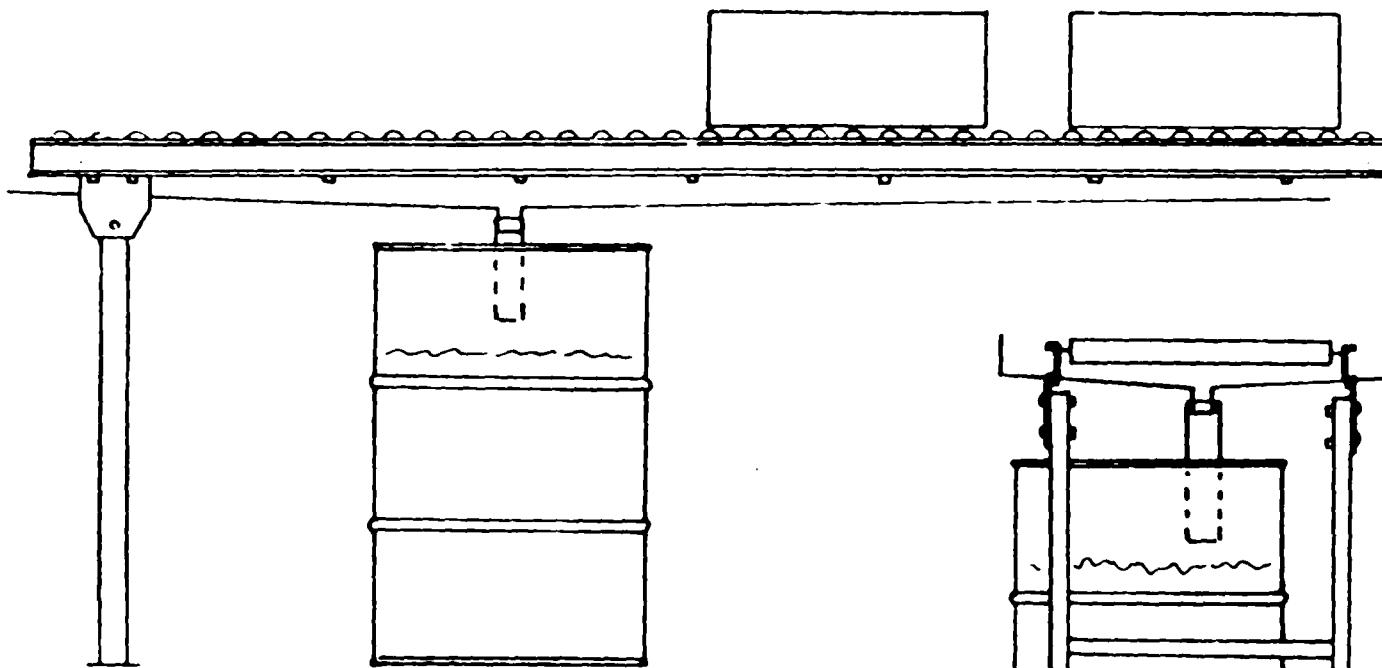
Bottom:	/	/		/
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Cleaning Agents:	/	/		/
------------------	---	---	--	---

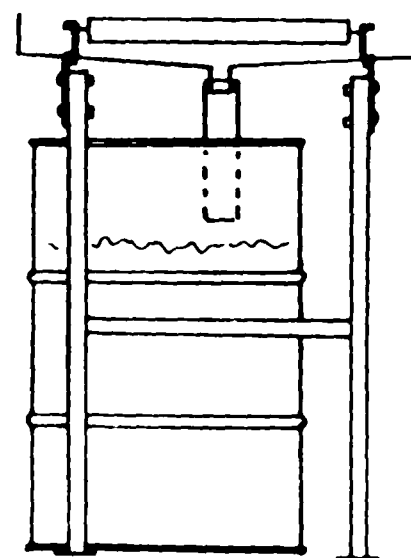
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Comments:

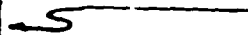


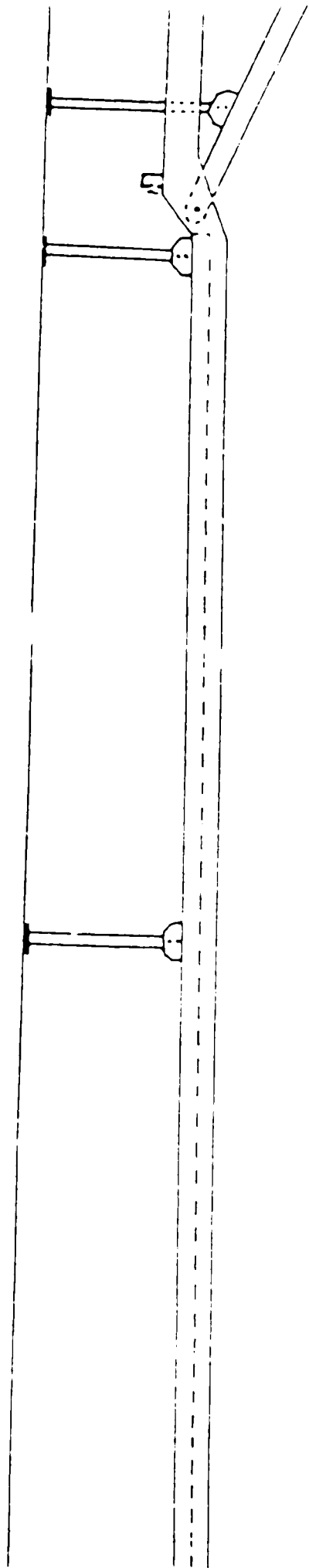
SIDE VIEW

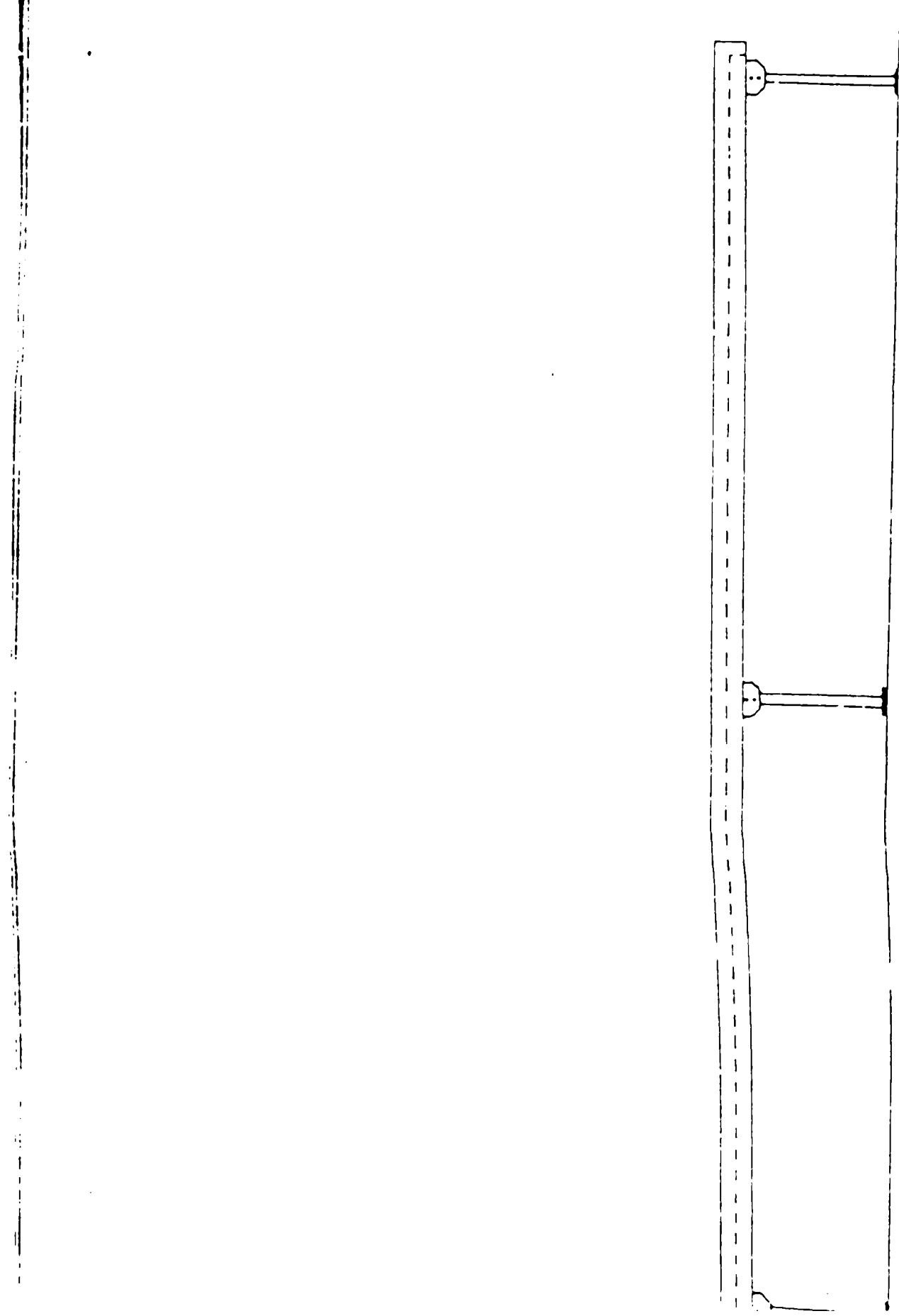


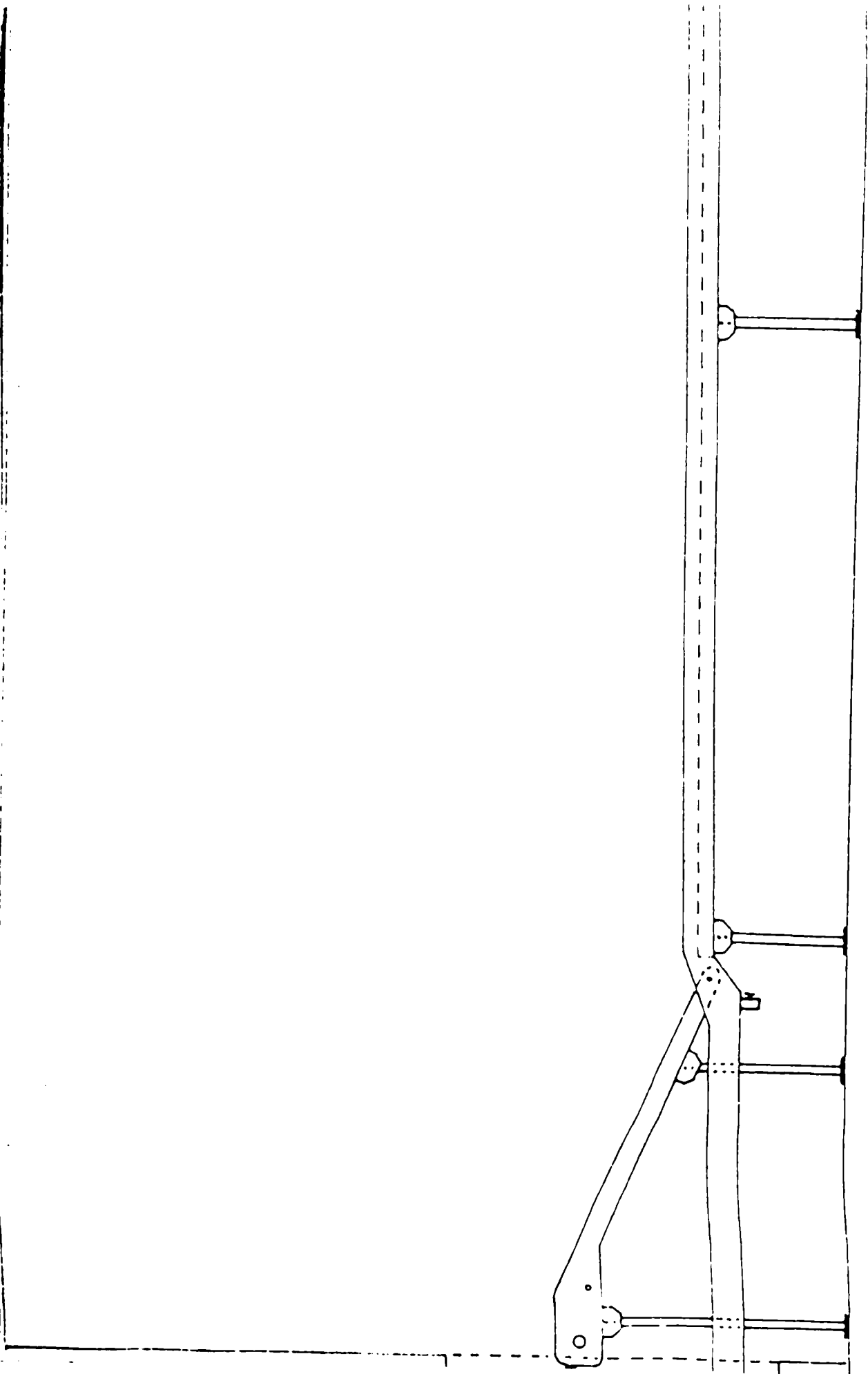
END VIEW

Sheet Metal
Tray

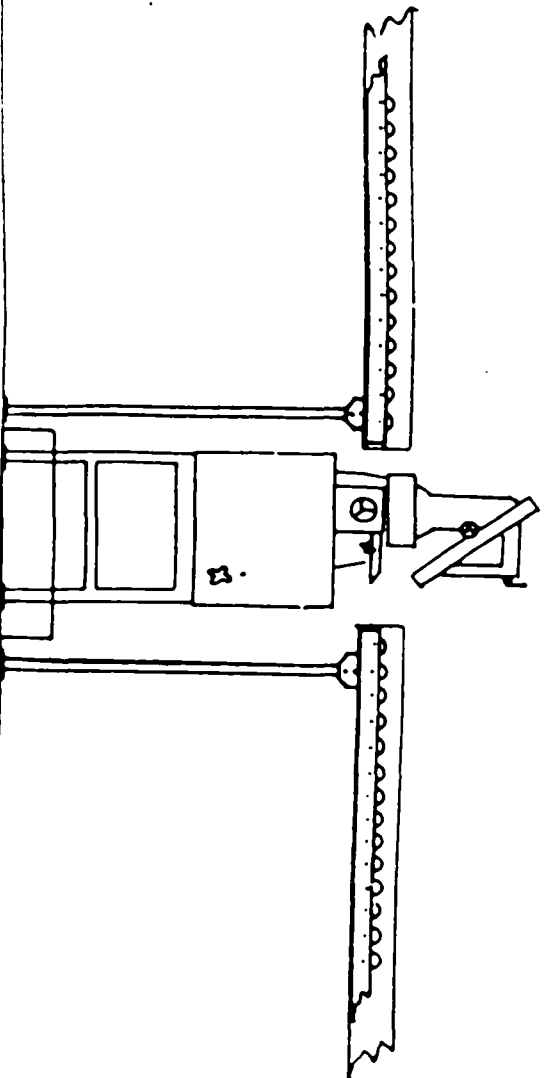








Sawing Station



Handrail

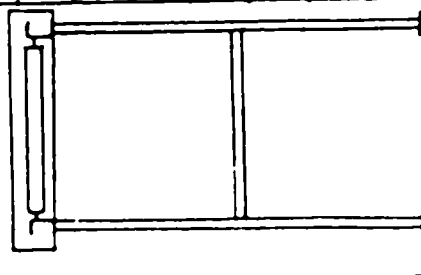
Platform

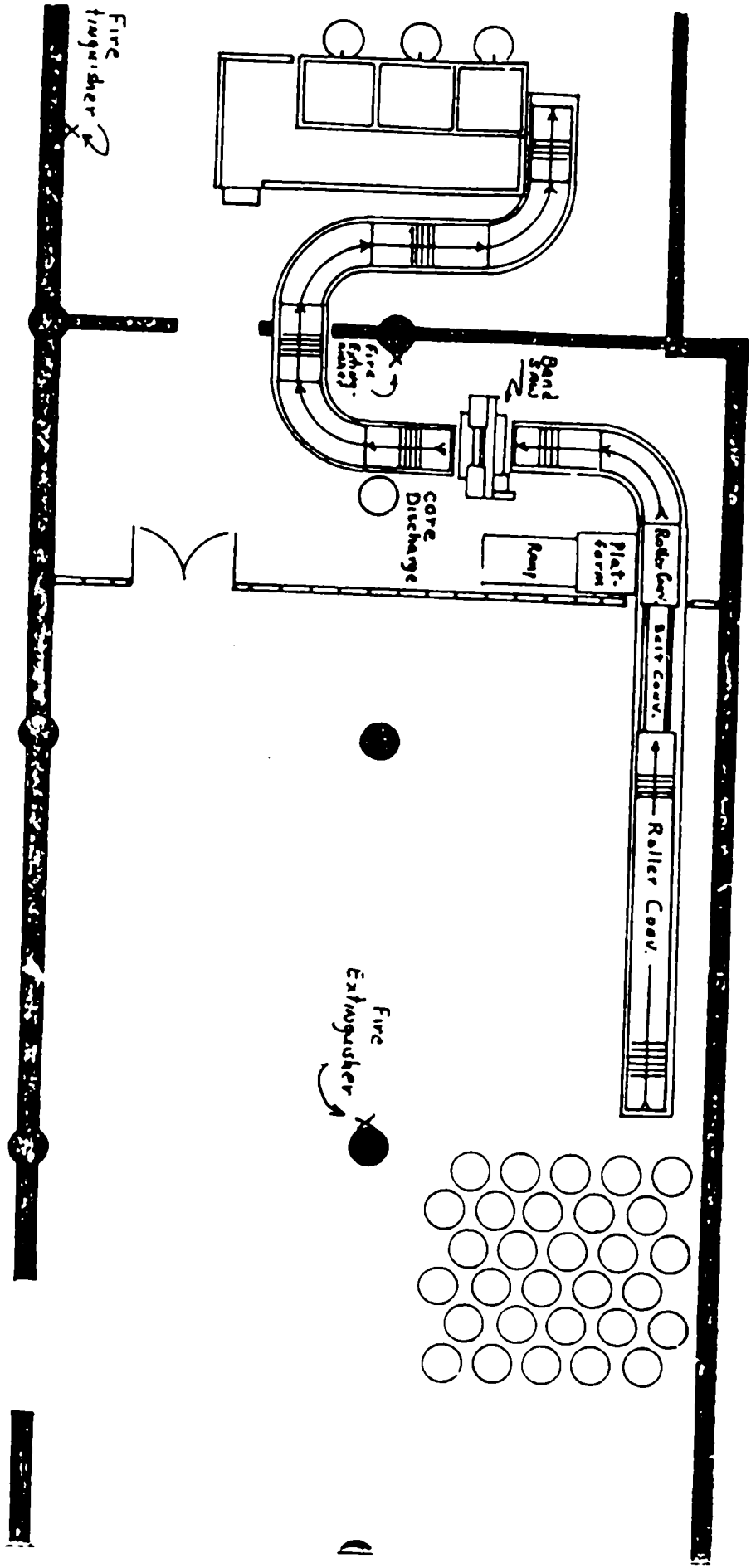
Tank

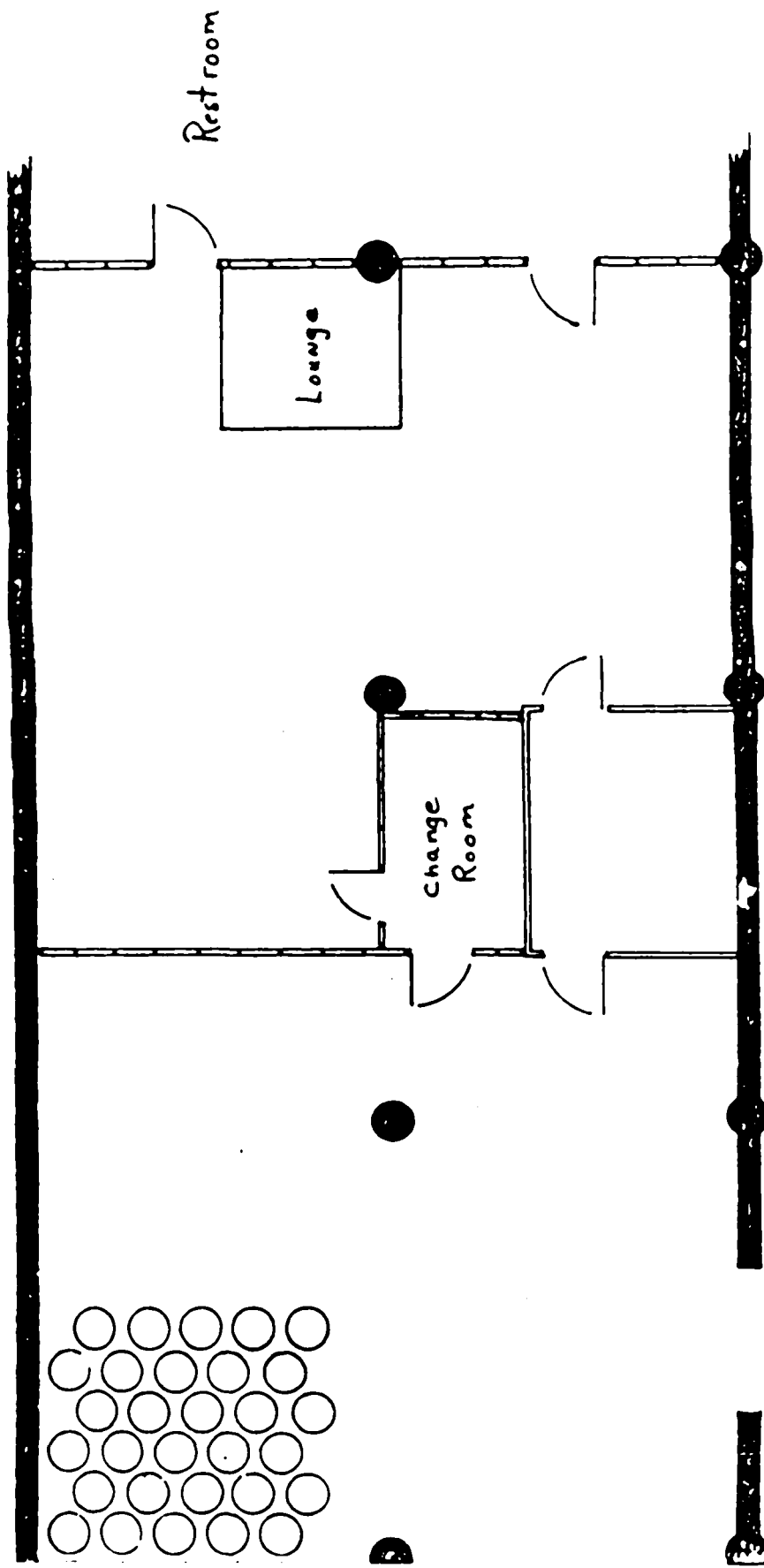
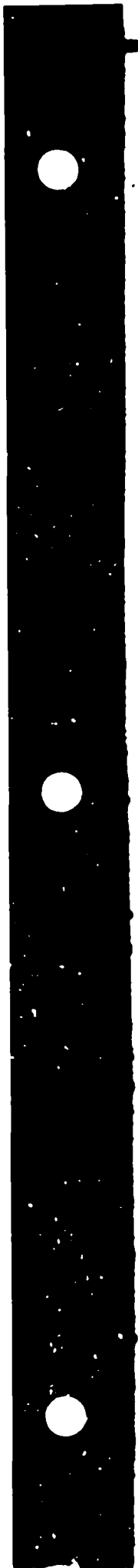
Tank

Tank

55 Gallon Barrels







May 4th, 1983

Approval Request of P.C.B. Destruction Method

Section I

PCB Treatment Inc. is located at 2100 Wyandotte, Kansas City, Missouri. The on site facilities at this location dealing with PCB destruction are as follows. First floor loading and unloading dock is accessed by the alley in the rear of the building. Storage facilities consist of the 7th and approximately two-thirds of the 3rd floor. The balance of the 3rd floor which is inclosed contains the PCB destruction process line. Also in this area is our process lab used for testing and quality control. Our proposed destruction method on the 3rd floor will require approval.

PCB Treatment Inc. is owned by Mr. Jack VanGundy 2100 Wyandotte, Kansas City, Missouri 64108, phone 221-3660.

The principal manager of this facility is Mr. Jack VanGundy and the supervisor of operations is Mr. Jim Scott.

The EPA contacts for the 3rd floor destruction process are as follows:

Mr. VanGundy: Address and phone same as above.

Mr. Jim Scott: Same

Bob Schneider: Safety and quality control manager--same

Frank Zondca: Process supervisor--same

TSCA CONFIDENTIAL
BUSINESS INFORMATION
DO NOT COM-
SECURITY INFORMATION

0851

DECLASSIFIED
10-22-86
ASP

Process Description

Section II

To destruct capacitors by the following method:

1. To record all data necessary for PCB Treatment Inc. to comply with all F.P.A., state and local requirements.
2. To open and drain the capacitor by the use of an air operated drill.
3. To saw the top/side and or bottom of the capacitor for core removal using a power hacksaw.
4. To remove all components from the capacitor i.e., oil, core, top insulators, side and or bottom and place into approved containers for shipment to an approved EPA burn center.
5. To scrub, clean, and decontaminate canister or block portion of the capacitor to the approved level (less than 2 ppm) by using kerosene in the scrub tank to remove heavy concentrations of oil, place in vapor cleaning stations containing III Trichlorethylene for final cleaning.

Operating Procedure

Drums containing PCB capacitors will be moved from the storage area by lot and storage number on a daily basis. Drums will be placed in the staging area for opening. The drum will be unsealed and the capacitor unloaded.

At the loading area all data per capacitor will be logged in the daily work log, i.e., where from, date, etc. All capacitors will be manually loaded on the entrance conveyor. They will travel to the lift conveyor which is controlled at the puncture station.

Capacitor will be punctured top, bottom, and side by a 1/2 inch air drill. Once the puncture occurs the capacitor will be allowed to drain. Air may be applied as necessary for faster draining if necessary. From the drain station the capacitor will manually be placed in the saw fixture for sawing. Both the top and bottom of the capacitor will be cut off leaving access to the core which will be removed and along with the top of the capacitor will be placed in a drum for storage and shipment to the burn center. The bottom will be placed on the conveyor to go to the wash station.

At the scrub/degreasing station the case (block) will manually (small) hoisted (large) moved from the conveyor into the 1st wash tank. In the wash tank the case (block) will be washed and placed into the next tank for draining. Then moved to the 1st vapor chamber for degreasing approximately 15 minutes, removed and placed into the 2nd vapor chamber for the final degreasing and

cleaning. Once dry the case (block) will then be manually placed on pallets for 24 hours (minimum) storage. If all sampling swab test show less than 2 ppm, (blocks) will then be released for disposition. Disposition will be salvage metal sale made locally.

A one percent A.O.Q.I. inspection plan will be used for the purposes of sample testing and will provide a 95 percent confidence level. All samplings will be made after the wash and degreasing process has been completed.

The process line is designed to handle approximately 10,000 lbs per 8 hour shift and we expect to handle a minimum volume of 50,000 lbs per week.

Process controls include automatic shut of on the compressor, automatic shut of on the power saw and automatic heat control shut off on the vapor degreasing units.

Safety features include filtered exhaust at the saw, wash and degreasing stations. Drip pans under all conveyors and all work stations. Drum over fill floats will be used at all drum areas.

See attached drawings and pictures.

Anticipated Performance of the Unit

Until such time as approval is received and this unit can be placed into full production all performance figures stated, have not been verified by actual production results.

The two controlling factors of this line process are the saw (time to make cut or cuts) and the degreasing units. Also due to the varying sizes of the capacitors the time to saw and degrease will also vary.

Saw: Anticipate opening 17 per hour X 8 hours = 136 units
 136 units X Avg. weight of 84 lbs
 per unit = 11.424 lbs per shift

Degreasing unit: Anticipated performance. Average number of capacitors in on unit at a time = 4.9 X 15 minutes in the unit = 19.6 units per hour.

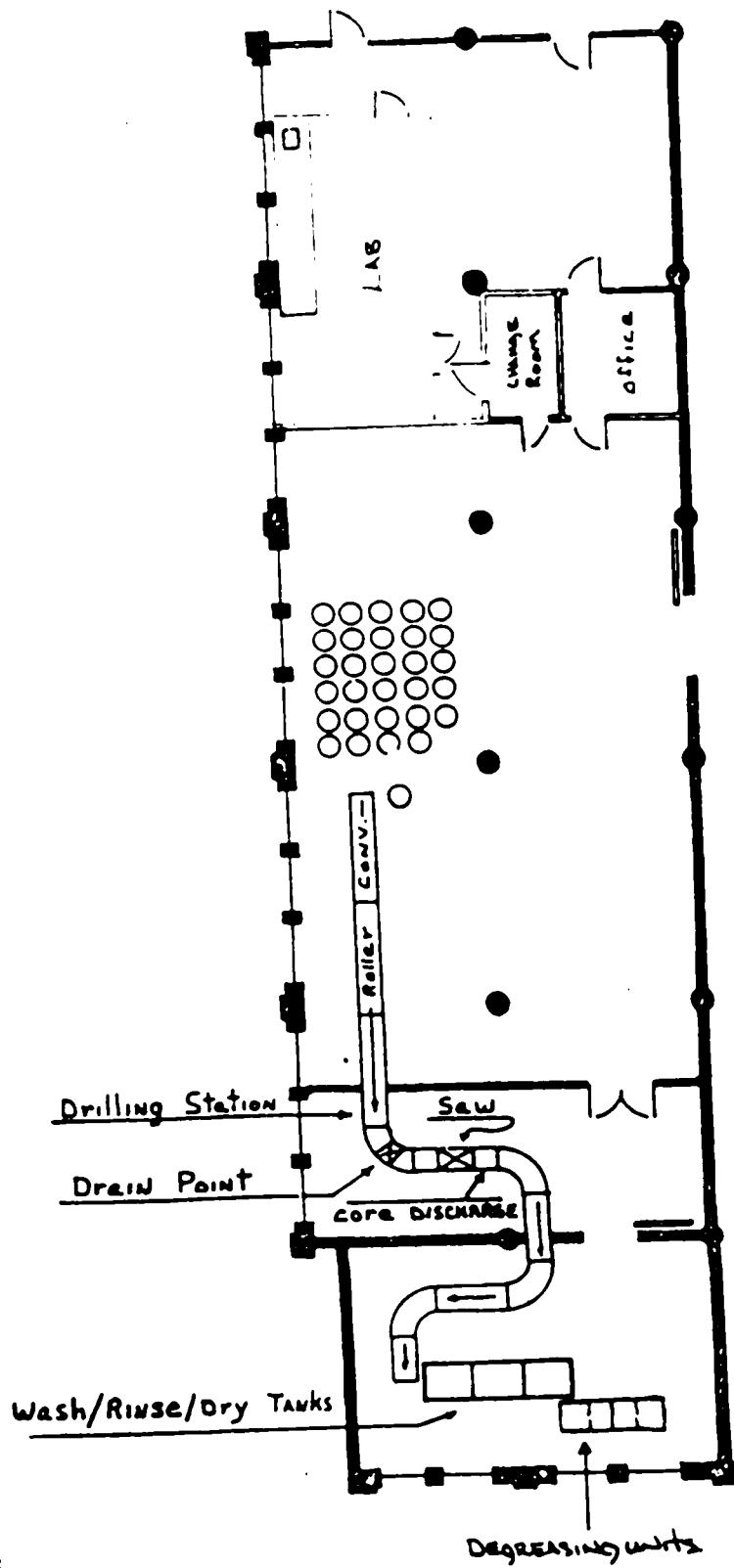
Equipment List:

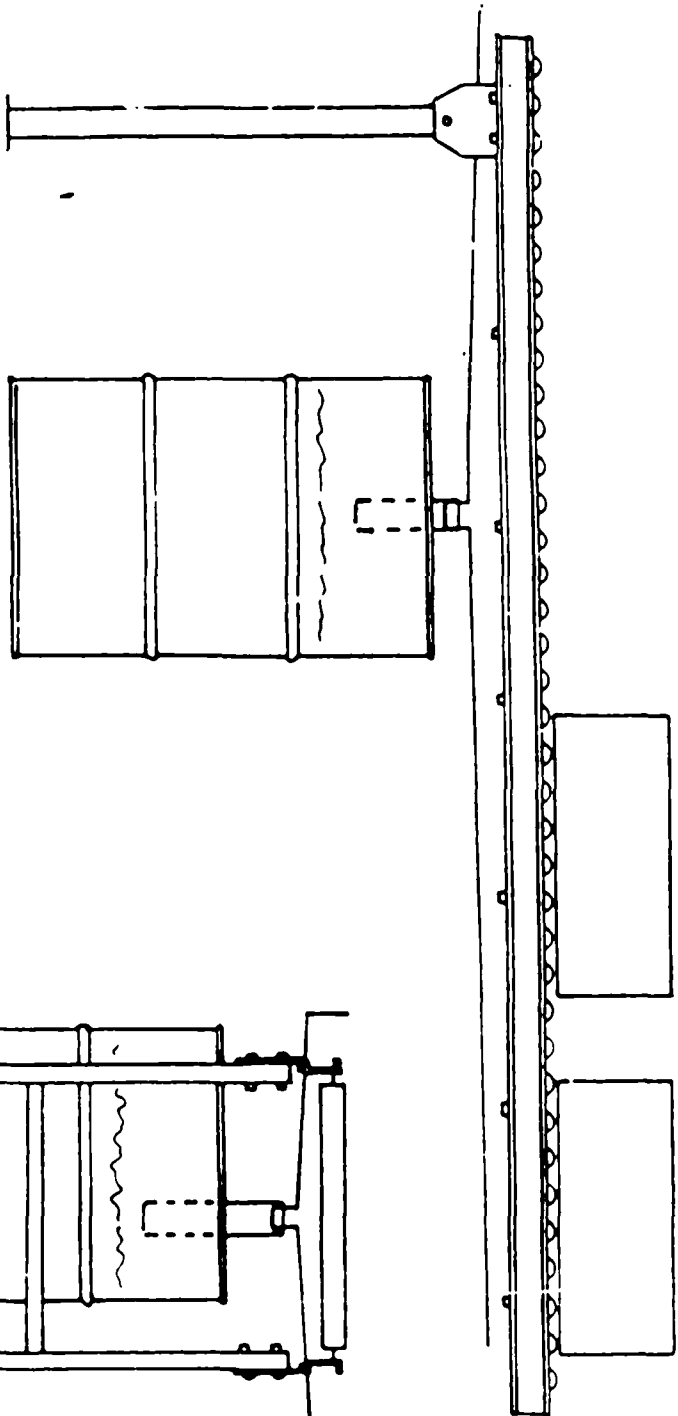
Compressor: Will be stationed out side of the actual working area and the air piped in.

Air will be piped to the following line processes:

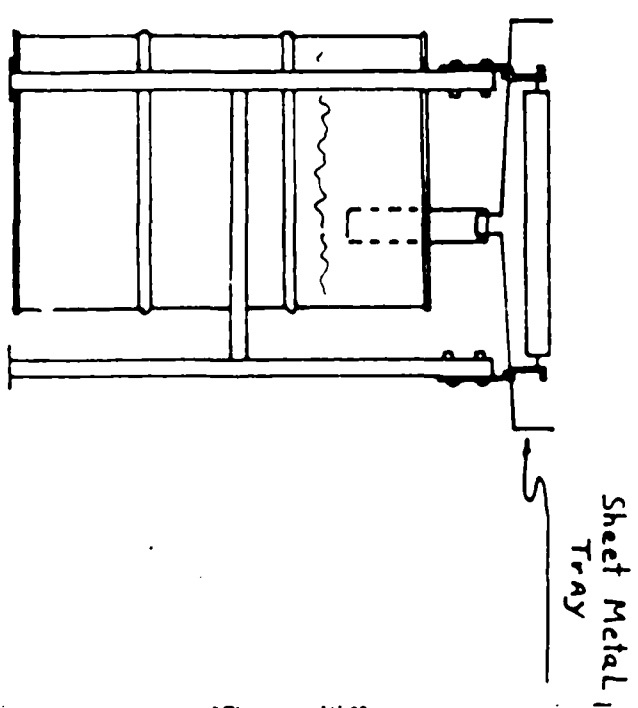
Drum opening area: To be used on impact wrench.
 Puncture area: To be used on 2 air drills and
 cylinder information.
 Saw operation: For blade cleaning and flushing.
 Wash/Degreasing area: For spray/flush and clean-ups.

- Conveyor and Power Conveyor:
 All conveyors are set for gravity feed except for one
 8 foot power conveyor used to elevate capacitors to
 correct work station height at the puncture area.
- Air Drills: Will be 2 drills using approximately a 1/2" bit for
 puncturing the capacitor.
- Saw: Used to make top and bottom cuts on the capacitor
 saw blade will have a flush and wipe unit installed
 for blade cleaning.
- Wash Tanks: Are elevated and mounted on concrete blocks. Each
 tank will have a shut off and drain and will drain
 in to separate drums.
- Degreasing Units:
 Dual degreasing units are mount on drip pans and set
 on the floor. Water is piped to the units for
 cooling the coils and the units have their own fil-
 tered exhaust system.
- Overhead Hoist:
 Mounted on a rail above degreasing units to be used
 for loading and unloading the units. Used or waste
 cleaning solution kerosene and III Trychlorethlane
 will be moved in 55 gallon drums to the storage area
 for re-cycling and re-use, or for shipment to an
 approved burn center.
- Drip Pans: Will be under the entire line operations.





SIDE VIEW



END VIEW

Sheet Metal
Tray

Process Chemistry

Section III

PCB Distribution: None

All contaminated fluids drained from capacitors will be drained into drums, sealed, recorded and stored for shipment to an approved EPA burn center. Storage not to exceed 45 days.

Side Reactors:

All spills will be cleaned immediately, recorded on the daily work logs, and reported as necessary. Any injury or illness occurring as a result of the normal operating conditions will receive immediate attention, recorded and reported in writing to EDA within 24 hours of the occurrence.

Re-Agents/Solvents:

Will be drained daily into drums, sealed, labelled, and recorded. Used kerosene and III Trichlorethylene will be stored for shipping to an approved burn center. In the near future we hope to re-cycle these cleaning agents for re-use.

Process Testing:

During the initial start up and line operation 27 units out of each 100 units opened and processed will be selected at random and tested with all data recorded. Each unit will be marked and stored for 24 hours awaiting test results.

Mass Balance:

All units opened will be stored in our going storage area for a 24 hour period awaiting test results. If tests are accepted, units will be prepared for shipment. If tests are rejected that portion of production that was rejected will be re-worked through the degreasing units and re-tested. All units both accepted or rejected must be recorded and kept on file.

Once the approved cleaning and de-contamination agents and methods are achieved the sample testing can be reduced to 12 units per 100 units opened. In this situation if 1 sample fails the test all 100 units must be re-worked.

Sampling and Analysis

1. Selection: One sample per each 100 will be selected at the point the core is removed, marked, and tested for ppm prior to wash and degrease.

Balance of samples will be selected and tested after the dry station.

2. Testing: A trained lab technician will perform all tests and document results. All test results will be reviewed and verified by our lab chemist.

3. Action Resulting From Test:

Accepted lots will be processed in a normal manner. Rejected lots must be verified by the chemist. All rejected lots must be processed through the degreasing units and re-tested.

Section 4 Safety

Operating Safety

1. The P.C.B. Inc. safety check list must be reviewed and signed by all personnel working in the process area.
2. All start up and clean up procedures are to be followed at all times.
3. No power equipment including hand tools are to be operated unless more than one employee is in the area.
4. All ventilating and exhaust equipment is to be on and operational prior to any capacitor is drained or sawed open.
5. All machinery guards must be in place.
6. All air regulators and lines to hand tools are to be set at the approved O.S.H.A. standard.
7. All spills are to be cleaned up immediately and reported to the supervisor.
8. Drill bits and saw blade should be monitored regularly to be sure heat level is controlled and cooling system is operational on the saw.
9. Do not force power saw--follow operating manual at all times.

Section 4: Safety

1. All start-up, operating, and clean up procedures are to be followed at all times.
2. Air regulators installed and operational.
3. Drip pans and splash guards under all conveyors and around drill and wash stations.
4. Exhaust system containing charcoal filters.
5. Guard rails on all conveyors.
6. Availability of approved safety equipment i.e., fire extinguisher, first aid kit, eye wash station, safety clothing.
7. All machinery guarded and guards in place.
8. All hand tools kept in designated areas, not on the floor.
9. Approved protective clothing provided and must be worn at all times.
10. Possible contaminated protective clothing must be removed in the prescribed area before leaving the work area or plant.

Section 4 Safety:

Operator Safety:

1. All start-up, clean-up, and operating procedures are to be followed at all times.
2. All jewelry is to be removed prior to work.
3. Protective clothing must be worn at all times.
4. All operating personnel should obtain help in lifting weights heavier than 80 lbs.
5. All protective clothing is to be removed in the designated area prior to leaving the work area or the plant.
6. Never leave machines/hand tools running unattended.
7. Always be sure that more than one person is in the area before starting machinery.
8. Do not rest feet, hands, or other parts of the body on a machine or conveyor while running.
9. Do not start any conveyor or machine without first checking that all is clear.
10. Make certain all guards are in place before starting equipment and never make adjustments while machine is running.
11. Do not operate any piece of machinery or hand tool unless specifically authorized to do so.
12. Shut off all power equipment before cleaning or oiling.
13. Keep all rags in approved containers.
14. Good housekeeping is essential for safety. Return all tools and supplies to their proper location and place trash in approved receptacles. Keep floors clean of all liquids and objects.

P. C. R. Treatment Inc.

Safety Check List:

1. Report any/all hazardous conditions immediately.
2. Importance of good housekeeping and cleaning of all spills.
3. Do not run in work areas or while at work.
4. Know locations of all exits, medical and emergency equipment.
5. Know fire and disaster procedures.
6. Smoking policy.
7. Never walk or stand on a skid or pallet, go around obstacles not over them.
8. Keep aisles clear at all times.
9. Wear proper clothing and safety protection appropriate for the job and approved by E.P.A. including shoes.
10. Lifting, bend knees, not back.
11. Keep unprotected sharp objects out of pockets.
12. Read and obey signs, tags, markers identifying hazardous areas
13. Horse play is unacceptable behavior.
14. Report injuries immediately to your supervisor.
15. Report all spills of contaminated materials immediately.
16. Operate machinery only if authorized to do so.
17. All jewelry is to be removed while working on the process line or operating machinery/hand tools.
18. Use solvents/flammable liquids only for the purpose intended
19. Do not climb, jump, or sit on conveyors.
20. Do not climb, jump, or sit on drums.
21. Never stand skids/pallets on edge or lean against any object.
22. Look in all directions when moving drums.

The above check list and guidelines are intended for the protec-

tion of all employees and to ensure their well being while on

EFFECTIVE SAFETY PROGRAM

The objective is to increase the awareness of the individual front line Manager as to the role he must play in the establishment of a safe work environment, the development of safe work practices, and the maintenance of the safety program in his area.

There are a number of details that the supervisor needs to be aware of in order to be effective in promoting and maintaining a worthwhile program.

1. The supervisor should first know what the Safety Policy is and what it specifies as to his responsibility and authority.

POLICY

PCB Treatment. is vitally interested in accident prevention. It is interested because it involves the safety and well-being of all our people. In addition, accidents are indicative of wasteful and inefficient operations. They result in needless damage to property and equipment...which leads to interference with work plans, dissatisfaction, and loss of good will. It is the policy of the company to provide safe working conditions, equipment and facilities. This policy conforms to the requirements specified in the Occupational Safety and Health Act of 1970.

2. The supervisor should know what his total responsibilities are and how he is expected to integrate safety with them which areas, operations, machines, personnel he directs; what is to be done about maintenance and repairs, working conditions, provisions of

guards, protective devices, and housekeeping responsibilities.

3. The supervisor should know what the safety regulations are and how they apply, what disciplinary action is permitted, and under what circumstances.

- A. Department safety manual
- B. Constructive criticism by supervisor

4. Instructing and training workers to be safety oriented. No matter how well safety is engineered into a Plant or a job, much of the safety of employees depends upon their own conduct. Some people work safely in dangerous surroundings whereas others have accidents on jobs that seem quite safe. Controlling people is, therefore, a necessary part of the accident prevention program.

5. Determining safe work methods for each job by identification of potential hazards.

JOB SAFETY ANALYSIS

- A. Select the job to be analyzed.
- B. Break the job down to be analyzed.
- C. Identify the hazards and potential accidents.
- D. Develop ways to eliminate hazards and potential accidents.

6. The supervisor should be aware of what safety devices and personal protective equipment are to be used on each job, and the procedures for making them available.

- A. Safety inspections
- B. Prompt correction

7. In the event of an accident, the supervisor must know who to contact. Emergency accident procedures are outlined in detail, in the safety manual. It is the responsibility of each supervisor to

be acquainted with these procedure and to keep the instructions within close accessability in the event of an accident.

8. Accident reports -- Timeless and Thoroughness

It is imperative that on-the-job injuries be reported as soon as they happen. Supervisors must insure that their work force be reminded of their responsibility to report accidents immediately. Injuries reported other than during the shift in which they occur will normally be treated as personal injury.

9. Accountability Through Training

A new employee training program includes:

- * New employee safety orientation.
- * Understanding plant safety rules and resulting actions if they are not followed.
- * Periodic (at least monthly) safety meetings.
- * One-on-one training for special situations such as difficult jobs or slow learners.
- * Special training for emergency situations.
- * Job safety analysis and instruction.

If the supervisor is to teach things effectively, he must know them well.

Start-up Procedures:

1. Lighting, heating, and ventilating checked, turned on and operating prior to start up.
2. All drain pans, containers, and drums are to be checked for fullness. If full, remove according to procedure.
3. All machine and conveyor guards are to be in position and secure.
4. Perform oil up and preventive maintenance on all power equipment.
5. Saw blade wash tank checked for fullness and to be sure it is operational.
6. Exhaust filter checked and in place, replace as necessary.
7. Exhaust blowers turned on and operational.
8. All air regulators checked and set at prescribed level.
9. Wash and degrease tanks checked and filled to appropriate levels.
10. All safety equipment and materials in approved locations and in good repair.
11. All operating personnel must wear approved safety clothing which includes mask, glasses, gloves, jacket, pants, and boots.
12. Check daily log book and all data sheets for supervisors approval and for filling in appropriate area.
13. Check sample blocks and test results for approved disposition of de-contaminated capacitor blocks.

End of Shift Shut Down and Clean-Up Procedures.

1. All drip pans are to be cleaned and wiped down.
2. All drains are to be shut off.
3. All drains containers checked for fullness and removed if full and replaced with empty container.
4. All full liquid drain containers are to be sealed, labelled, logged, and moved to out going area for shipment to approved destination. Approved by supervisor.
5. All spills are to be checked by your supervisor before clean-up is complete and to be sure all data has been recorded.
6. All hand tools are to be cleaned, wiped, and placed in appropriate area.
7. Drill bits are to be washed with appropriate cleaning agent before storing.
8. Saw blade tank is to be cleaned and re-filled.
9. Saw table and work table to be washed and wiped down dry.
10. De-contaminated capacitor blocks are to be skided by number and moved to the storage area for holding. No blocks are to be moved from this area without the supervisors approval.
11. All floors and work platforms are to be swept and checked for spills.
12. All shop towels, materials, and liquids used in clean-up must be placed in approved containers for shipment to burn center.
13. All power is to be shut off at the breaker panel.
14. All exhaust fans are to be shut off.
15. All protective clothing must be removed in assigned area for storing and re-use.

Oil Containment:

The entire process line will be equipped with 6 inch high drip pan with 3 drains. All oil/liquids will drain into approved containers. The wash and degrease station with approved splash controls will drain in to 55 gallon drums for re-cycle. See drawings. Wash and degrease tanks will be tested daily for contamination. At the point that the kerosene and III Trichlorethylene reaches 2 ppm, the tanks will be drained and re-filled with virgin agents. The drying tanks will be cleaned at the end of each week's operation.

Operating Conditions:

Operating conditions for the work areas including the process line are as follows:

1. Heating/air conditioning will be controlled to 65 degrees and will be shut down at the end of the normal work day.
2. All fire doors will be kept shut during normal operations, except during the loading of the staging area.
3. Fire extinguishers will be mounted in designated areas and checked per city code and ordinance.
4. Any and all spills will be cleaned immediately.
5. Process line will be cleaned at the end of each work shift and all clean up procedures followed.
6. All personnel working on the line will wear approved safety clothing i.e., boots, gloves, mask, etc.
7. Emission control, exhaust fans will be turned on at the start of each work day and left on during line operations. Filters will be checked and changed on a regular basis.

Material Recovery

It is the intent of P.C.B. Inc. to recover the following:

1. Canister or capacitor block and base, for sale as scrap metal.
2. The cleaning agents used, (kerosene and III Trichlorethane)

will be shipped to an approved burn center, however it is the intent of PCB Treatment to continue to work on and achieve an approved method to re-cycle these agents for re-use.

All other components and materials will be placed in approved containers (drums) sealed and stored for shipment to an EPA approved burn center.

Drum Overfill Control.

All drums used to hold capacitor components, fluids drained from capacitors and used cleaning agents will be equipped as follows.

1. Drain Stations

Bung hole type drums will be used at the drain station to drain all used kerosene into. Drum will not be filled to more than 90% of capacity, at which time the full drum will be removed and replaced with an empty drum. Drum fullness will be checked by an attached float control flag, allowing the operator to see when drum is full to capacity.

2. Core Ejection Station

Drum is visible from the saw station. Drum will hold the core, top and bottom of the capacitor case. Drum will be filled to capacity at which time the steel drum lid will be sealed to the drum, and labeled and stored in assigned storage area for shipment to the burn center.

3. Wash and Degreasing Tanks

Bung hole type drums will be used at the wash and degreasing tanks to drain all used kerosene and III Trichlorethylene into. Drums will not be filled to more than 90% of capacity, at which time the full drum will be removed and replaced with an empty drum. Drum fullness will be checked by an attached float control flag allowing the operator to see when drum is full.

All drums will be checked hourly by the supervisor in charge. Again all spills and or possible overfill are to be cleaned up immediately and reported to the supervisor.

Environmental Impacts

Section V

Process Emission and/or Discharge

The puncture, saw, wash and degreasing areas are all vented by overhead vents with blowers pulling the air through 2 stage charcoal filters and into the outside atmosphere.

Toxicity levels will be monitored daily by our lab technicians and lab chemist with appropriate action taken as necessary.

Disposal consists of the following:

Capacitor Components:

Oil is drained into approved drums, sealed and stored for shipment to an approved burn center.

Top insulators, cut off top, side and/or bottom will be placed in drums same as above.

Canistor or block will be cleaned using kerosene and III Try-chlorethlane degreasing vapors.

Cleaning Agents:

Which are kerosene and III Trychlorethlane will be used until they reach their level of being contaminated and are no longer effective. At that time the used agents will be pumped into drums sealed and stored for shipment to an approved E.F.A. burn center.

In the future we hope to be able to re-cycle both agents for re-use.

Specific Site Information: 2100 Wyandotte is located in the industrial business area of downtown Kansas City, and the surrounding land is all industrial buildings. Surface water and run-off in this area is handled very easily by the existing sewer and drainage systems. There is no specific flood control in this area however, since our process operation is located on the 3rd floor the only existing problem relating to flood would be access to the building.

At the present time no arrangements have been made with other facilities for disposing of our products.

Sampling and Analysis

Section VI

Sampling location will be after the 2nd vapor degreasing process. Location on the capacitor to take the sample will be the inside-side wall or end and the normal swab method will be used following all procedures for this type of test.

Chemical Analysis

In order to assure that the maximum permissible PCB contamination level for capacitors of $0.02 \text{ mg}/100\text{cm}^2$ is achieved, it is necessary that chemical analysis be performed at regular intervals. These chemical analyses are conducted by a trained laboratory technician under the direction and guidance of a degreed chemist. The following is illustrative of the method of analyses.

A. Sample Collection and Preparation

Sample collection is performed by the laboratory technician after donning appropriate safety clothing. A representative area of 100 cm^2 is wiped with a clean filter paper (Whatman #54 or equivalent), and the filter paper extracted twice with 10 ml aliquots of pesticide grade isooctane. The solvent is quantitatively transferred to a 25 ml volumetric flask and the volume adjusted to 25ml.

B. Analysis

The sample, prepared as directed, is analyzed via gas chromatography (Schimadzu, GC-Mini2) employing electron capture detection and a digital integrator as recommended by the protocol entitled, "The Analysis of Polychlorinated Biphenyls in Transformer Fluid and Waste Oils," issued June 24, 1980 by the Environmental Monitoring and Support Laboratory, Office for Research and Development, U.S. Environmental Protection Agency, Cincinnati, Ohio.

The qualification of PCB's is achieved using commercial mixtures of PCB's as standards. The results are calculated and reported on the basis of $\text{mg}/100\text{cm}^2$. A permanent record of the chromatograms is maintained with appropriate documentation.

Contingency Plan--Temporary Shut Down. Part 1.

Plan is based on the knowledge that the shut down is only temporary --not to exceed 45 days.

1. All on-site capacitor storage inventory will be inventoried within 24 hours of shut down date and all records up-dated. Action will be taken as necessary related to inventory results, i.e., movement of and or disposition with notification to capacitor owners.

2. All on-site capacitor components and records will be inventoried within 24 hours of shut-down date. Contingent on volumes and storage dates, action will be taken as necessary, i.e., hold in storage--ship to burn center.

3. On-site destruction facility:

- A. All records and logs will be locked up for safe keeping.
- B. All employees will be notified of shut down within 24 hours and a notice will be posted in the process area.
- C. Process facilities, i.e., conveyors, pans, drill, saw, etc will be washed and cleaned thoroughly.
- D. Wash tanks and degreasing units will be drained and cleaned.
- E. All drain containers will be stored for re-use or shipment to an approved EPA burn center.
- F. All hand tools and safety equipment will be checked, stored, or prepared for shipment to the burn center.
- G. All capacitors not destroyed but in the process area will be returned to the storage area.
- H. All floors in the process area will be swept and mopped down thoroughly.

Contingency Plan--Temporary Shut Down.

Plan is based on the knowledge that the shut down will exceed 45 days but is not a permanent shut down.

1. Same as Part 1 except for the following:

All capacitor owners will be notified in writing within 48 hours of the shut down, reason for the shut down, expected start-up date (if available) and disposition, if any, of on site capacitors belonging to them.

2. Same as Part 1 except for the following:

All contaminated components will be prepared for shipment and shipped to an approved EPA burn center within 30 days of shut down. All decontaminated components, i.e., canister and bottom (scrap metal) in excess of 1000 lbs will be shipped and sold as scrap metal (locally).

3. Same as Part 1

Process area to be locked up. Authorized personnel only will be admitted.

Contingency Plan--Emergency Shut Down. Part 3.

Based on the degree and or situation of the emergency, and the expected time frame of said emergency, which will be determined by the EFA, the following action will be taken

1. Same as Part 1, or Part 2 of this contingency plan.
2. Immediate shut down:
 - A. All power to equipment must be shut off at the breaker box
 - B. All open drain containers must be closed, small drain containers are to be emptied into auxiliary stand by safety drum and drum sealed.
 - C. Wash/scrub tanks must be covered.
 - D. All doors must be closed.
 - E. All records and documentation will be placed in fire proof cabinet.
 - F. All employees will exit via the fire exit or contingent stairways.
3. Depending on the emergency and time allowed for shut down the following steps will be taken in addition to the above.
 - A. All capacitors on line but not open will be replaced in drums they were received in. All drums will be placed back in the storage area.
 - B. All components will be sealed in approved containers and removed from process area to shipping area.
 - C. All equipment and the process line will be cleaned according to normal clean up procedures.
 - D. All records and data will be picked up and removed from the area by the supervisor in charge.

Contingency Plan--Closure. Part 4.

1. All companies and/or owners of contaminated capacitors with which PCB Treatment Inc. has done or is doing business with shall be notified in writing of PCB Treatment closure within 7 days of closure notice.

2. Closure will start within 72 hours of notice and will be complete and final within 45 days of notice. If longer, justification must be made in writing to the EPA.

3. PCB Treatment Inc. owners assure the EPA that funding is available for closure if and when necessary.

4. Closure Plan Outline:

EPA Facility I.D. No. MO0980633044

Owner Name Jack Van Hundy

Address and Phone No. 2100 Wyandotte K.C., Mo 221-3660

Facility Address 2100 Wyandotte K.C., Mo

1. Facility Conditions

A. General Information

1. Size of facility: 60,000 square feet
2. Storage facility: Drums
Capacity not to exceed 2500 at any one time.
3. Other facility on site. Reactor.
4. Waste Characterization.
 - A. Removed capacitor top.
 - B. Core of capacitor.
 - C. Contaminated oil (PCB) drained from capacitor.
 - D. Sludge from wash and scrub tank.
 - E. Contaminated cleaning agents--liquid.

B. Maximum amount of inventory ever on site including processing not to exceed 3000.

C. Schedule for final closure.

1. Final date waste accepted.
2. Dates for completion of inventory disposal.
 - A. Date all pre-processing completed.
 - B. Date all on-site disposal completed.
 - C. Date that all inventory has been disposed of on site.
 - D. Date that all inventory has been removed off-site.

3. Final date facility decontaminated.
4. Final date closure completed.
5. Total time required to close the facility.
6. Justification if closure is longer than 6 months.

2. Removing all inventory:

- A. Maximum amount of waste on-site in any stage of processing:
 1. Total amount of waste/residue in drums and number of drums will not exceed 1500 gallons and or 30 drums.
- B. Method and procedure for disposing or removing inventory.
 1. All non-processed capacitors will be shipped to an approved burn center and or land fill.
 2. All capacitor components, oil and sludge will be sealed in approved containers (drums) and shipped to an EPA approved burn center.

3. Decontaminating the Facility:

- A. All equipment and or facilities requiring cleaning.
Conveyors and drip pans--wash/scrub.
All hand tools including air drills--wash/scrub.
Power saw--remove blade--wash/scrub.
Wash and scrub tanks and grates--wash/scrub.
Total work area--wash and scrub.
- B. All waste and residue will be put in drums, sealed and shipped to an approved burn center.
- C. All cleaning agents will be re-cycled through PCB Treatment Inc. reactor.

4. Closure certification:

- A. An estimated number of inspections by the certifying engineer anticipated during closure is as follows:
 1. Start of closure proceedings to verify inventory and all documentation.
 2. Once during inventory removal and when removal is complete.
 3. After facility has been decontaminated.

Regulatory Compliance

Section VIII

Local:

Pcb Treatment has permission to test methods for EPA approval. Mayor's office has been notified of test and demonstration date.

State:

Pcb Treatment has permission to test method for EPA approval and the Missouri Department of Natural Resources has been notified test and demonstration date.

Federal:

Previous permission expired April 29, 1983 and a request has been made to the regional EPA office for permission to continue our testing to achieve EPA certification.

Current Schedule:

We have requested through EPA a test and demonstration of our construction method for May 12, 1983. Based on the results and pending approval we do not plan on actual production.

We are hopeful of getting verable approval so production can get under way as soon as possible on a very limited base. This would be with the understanding that depending on test results some corrective action may be necessary.

It should also be understood that compliance to all regulations and requirements will be met before we go into full production with notification to capacitor owners.

Demonstration Plan:

Section VIII

To be held at 2100 Wyandotte, Kansas City, Mo. on May 12, 1983
at approximately 11:00 p.m.

Quantity. (to be determined by EPA representative)

Type, PCB contaminated capacitors

In a previous test and demonstration for EPA our entire process was monitored. From this many changes have been made and the EPA representative will indicate to us what he wants to review.

Quality Assurance Plan

One sample per hour or one sample per every 15 capacitors will be selected (at random) after the final degreasing process.

A swab test will be made on this sample, taken to the lab for testing and analysis of results, approximately every hour. Units produced during this time frame will be identified with sample. If results are favorable then that lot passes, if unfavorable then lot rejects and must be re-worked and a second test made.

Steve Bush--EPA representative, Region 7, will evaluate all tests, data and the process demonstration.

THOMAS K. DOBBS

Address: 5716 N. Highland
Bladstone, Missouri 64117

EDUCATION

B.S., Chemistry/Mathematics, Southwestern Oklahoma State University, 1973.
M.S., Organic Chemistry, Oklahoma State University, 1978. "I. Acid-Catalyzed Dimerization of 1,2-Dihydronaphthalene. II. Photodimerization of 1,2-Dihydronaphthalene and Subsequent Reductive Carbon-Carbon Cleavage During Metal-Ammonia Reaction."

AREAS OF SPECIALIZATION

Organic analysis; chromatography (HPLC, GC, TLC); spectroscopy (NMR, IR, UV-vis, and MS); complete physicochemical characterization of unlabeled, mass-labeled, and radiolabeled organic compounds including the isolation, identification, and quantitation of impurities; organic synthesis; and clinical chemistry.

PROFESSIONAL EXPERIENCE

April 1981-Present, Midwest Research Institute, Kansas City, Missouri

Associate Chemist and Analytical Supervisor, BioOrganic Chemistry Department. Responsible for proposal generation and coordination of analytical support activities for continuing projects. Serves as a project leader for organic synthesis and analysis programs for industrial clients.

July 1978-March 1981, St. Francis Hospital, Wichita, Kansas

Specialist in Analytical Microbiology. Responsible for developing analytical methods for quantitation of antimicrobial agents in body fluids. Conducted metabolite studies for experimental drug program including protocol development and isolation of quantitation of metabolites from serum and urine.

September 1974-May 1978, Oklahoma State University, Stillwater, Oklahoma

Research Associate, Chemistry Department. Responsible for synthesis of organic compounds. Skilled in synthesis and purification of polynuclear aromatic hydrocarbons.

THOMAS K. DOBBS

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PROFESSIONAL AFFILIATIONS AND ACTIVITIES

American Chemical Society

CONTINUING EDUCATION, SEMINARS, WORKSHOPS, AND SPECIAL TRAINING

HPLC Training Course, Waters Associates, 1979.

Served as Faculty Member for the Continuing Education Program of the American Association of Clinical Pathologists, 1980.

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PUBLICATIONS

Eisenbraun, E. J., L. L. Ansell, T. K. Dobbs, L. E. Harris, D. V. Hertzler, and P. H. Ruehle, "Sodium-Ethylenediamine Reductive Dimerization of Naphthalene to 5,6,7,12,13,14-Hexahydro-5,13:6,12-dimethanodibenzo[a,f]cyclodecene," J. Org. Chem., **41**, 2910 (1976).

Ruehle, P. H., T. K. Dobbs, L. L. Ansell, D. van der Helm, and E. J. Eisenbraun, "Carbon-Carbon Reductive Cleavage During Metal-Ammonia Reaction," J. Org. Chem., **42**, 1098 (1977).

Vickery, E. H., C. E. Browne, D. L. Bynaster, L. L. Ansell, T. K. Dobbs, and E. J. Eisenbraun, "A Metal Apparatus for Large-Scale Reaction of Grignard Reagents with $^{13}\text{CO}_2$," Chem. Ind. (London), 954 (1977).

Burkes, J. E., Jr., D. van der Helm, T. K. Dobbs, L. L. Ansell, P. H. Ruehle, and E. J. Eisenbraun, "The Synthesis and Structure of Cis-anti-cis-5,6,6a,6b,7,8,12b,12c-octahydrodibenzo[a,i]biphenylene, the Major Photodimer from 1,2-Dihydronaphthalene," Acta Crystallogr., **34**, 496 (1978).

Browne, C. E., T. K. Dobbs, S. S. Hecht, and E. J. Eisenbraun, "Stereochemical Assignment of b- and Z-2-(1-Naphthyl)-1-phenylpropene and Their Photocyclization to 5-Methylchrysene," J. Org. Chem., **43**, 1656 (1978).

Browne, C. E., P. H. Ruehle, T. K. Dobbs, and E. J. Eisenbraun, "Carbon-13 NMR Analysis of Cyclobutane Dimers from Benzocycloalkanes," Org. Magn. Res., **12**, 553 (1979).

Dobbs, T. K., A. G. Holba, L. L. Ansell, and E. J. Eisenbraun, "An Improved Preparation of 1,2-Dihydronaphthalene," Org. Prepr. Proc. Int. (submitted).

Dobbs, T. K., D. V. Hertzler, G. W. Keen, and E. J. Eisenbraun, "Regioselective, Acid-catalyzed Cyclodimerization of 1,2-Dihydronaphthalene, Mechanism and Single Crystal X-Ray Analysis of Two Octahydrobenzo[*j*]fluoranthenes," J. Org. Chem., **45**, 4769 (1980).

Ruehle, P. H., T. K. Dobbs, L. L. Ansell, and E. J. Eisenbraun, "The Photodimerization of Methoxy Substituted 1,2-Dihydronaphthalenes and Their Reductive Cleavage During Metal Ammonia Reaction," J. Org. Chem. (submitted).

Dobbs, T. K., and E. H. Gerlach, "A Novel Method for Quantitation of Cephalosporins in Serum by HPLC," Clin. Chem. (submitted).

PAPERS

Dobbs, T. K., D. V. Hertzler, G. W. Keen, E. J. Eisenbraun, R. Fink, M. B. Hossain, D. van der Helm, "Regioselective, Acid-catalyzed Cyclodimerization of 1,2-Dihydronaphthalene," Presented at the Second Chemical Congress of the North American Continent, Las Vegas, Nevada, August 1980.

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THOMAS K. DOBBS

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Dobbs, T. K., A. R. Taylor, J. A. Barnes, B. D. Iscimenler, E. M. Holt, and E. J. Eisenbraun, "Acid Catalyzed Cyclization of 3,3',4,4'-Tetrahydro-1,1'-binaphthyl and the Single Crystal X-Ray Structure Determination of a New Polycyclic Stable Ozonide," Presented at the Pentasectional Meeting of the American Chemical Society, Bartlesville, Oklahoma, August 1981.

**TSCA CONFIDENTIAL
BUSINESS INFORMATION**

**DOES NOT CONTAIN NATIONAL
SECURITY INFORMATION (E.O. 12065)**

7/82

C

CC

P.C.B., Inc. of Missouri

(Dan) 605 256-6254

2100 WYANDOTTE
KANSAS CITY, MISSOURI 64108
816-221-3660

December 29, 1983

EPA-ARWM/PMTS

DEC 29 1983

DEC 29 1983

Region VII K.C., MO

Mr. Morris Kay
Regional Administrator
Region VII
United States Environmental Protection Agency
324 East Eleventh Street
Kansas City, Missouri 64106

RE: Report due for securing final approval of process to
handle polychlorinated biphenyl (PCB) capacitors

Dear Mr. Kay:

On July 5, 1983, we received interim approval to process the
above material. The conditions for operation also required
a supplemental report at the end of the year and prior to
final approval.

I am enclosing herewith materials required in the end-of-year
report consisting of a sample of the paperwork we utilize in
handling all PCB materials that come into our possession, a
statement regarding a change in the capacitor processing room
and a summary of materials on hand and processed.

In addition, I am happy to take this opportunity to assure you
of our confidence in the fact that we have not only lived up to
the requirements imposed in handling such material, but to assure
you that we have exceeded those requirements. We have
conformed to the federal laws and regulations from the
EPA and from DOT. Since we operate in most of the contiguous
states, we have made every effort to conform with state and
local regulations, licensing procedures and safety requirements.

Since we do qualify as licensed special waste haulers, we have
installed spill control stations on each of our vehicles and
also on the few we have leased for special trips. These stations
include complete protective clothing from head to foot and spill
control materials in the form of pumps, brushes, shovels, plastic
sheeting, absorbent, marking tape and drums into which waste may
be loaded.

TRANSFERRING

Page 2

From: Jack Van Candy

To: Morris Kay

December 29, 1983

All drivers are trained in spill control and safety and are required to sign a statement before leaving on a trip that they have physically inspected their vehicle and its contents and that they are adequately provided for in case of an emergency and have been trained in spill control.

Proper waste hauler permits have been obtained in the states where such are required and are carried in the cab of the vehicle with other fuel licenses and insurance papers.

All of our operations are covered by a first line liability insurance of \$1,000,000 and an umbrella coverage of an additional \$4,000,000.

New fire extinguishers have been placed in service at our facility and are under service by Edcor, (sic), the company from which they were obtained.

Our loading and unloading area is consistently washed down with kerosene and swept with floor dry after which swab tests are taken to ensure a healthy environment for our workers.

Spill control stations are maintained on each floor of our operation and are equipped in a manner similar to those stations on our trucks.

All materials reaching our dock are checked for proper labeling and count. During the past year, we have rejected one partially loaded improperly marked.

We have had ORM-E (RQ) labels specially imprinted with our own name, address and EPA number to insure both the accurateness and legibility of our shipments to the burn center or burial site. (A sample of the label is attached hereto.)

A daily walking inspection is made of our storage area with a special lookout for leaks or improper labeling. In addition, we have had two inspections made of our facility by outside specialists and have contracted with a consultant who makes periodic inspections and checks outgoing loads for safety and proper loading and labeling.

The summary of this report is that we have made every effort to be and believe we are in fact in compliance with both the spirit and the letter of the laws and regulations of the federal government, the various state governments and the municipalities in which we operate.

Page 3

From: Jack Van Gundy
To: Morris Kay
December 29, 1983

Based on these facts and the materials accompanying this report, we do, therefore, request final approval of our capacitor processing facilities.

Sincerely,

PCB INC OF MISSOURI

BY Jack Van Gundy
Jack Van Gundy, President

JV/te

Attach.

PROPER D.O.T. SHIPPING NAME **WASTE POLYCHLORINATED BIPHENYLS UN2315**

ORM-E

RQ

HAZARDOUS WASTE

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL

IF FOUND, CONTACT THE NEAREST POLICE, OR
PUBLIC SAFETY AUTHORITY, OR THE
U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERATOR INFORMATION:

NAME **P.C.B. INC., OF MISSOURI**

ADDRESS **2100 Wyandotte**

CITY **Kansas City**

STATE **Mo.** ZIP **64108**

EPA ID NO **MOD 980633044**

MANIFEST DOCUMENT NO. _____

DATE REMOVED
FROM SERVICE _____

DATE PLACED
IN SERVICE _____

TOTAL WT. IN KILOGRAMS _____

CONTAINS HAZARDOUS OR TOXIC WASTES

HANDLE WITH CARE!

WORK ORDER #

WASTE STREAM #

EXPLANATION OF PAPERWORK ON RANDOM
SELECTED GENERATOR

The first document entitled "order form", Exhibit "A", is the initial contact between the generator and our Kansas City office. This form is a two-part self-carbon document, the original of which was given to our truck driver as a pick-up order and the copy was kept as an office memo for pricing purposes.

Upon arrival at the pick-up site, our driver checked to see that all material was properly labeled with PCB stickers and ORM-E labels; they verified the number of articles on the manifest. In the present instance, our driver placed ORM-E labels bearing appropriate information and PCB labels on each drum.

When the load was received at our dock on January 31, 1983, the warehouse foreman unloaded the truck and weighed each barrel and filled in the "capacitor inventory sheets", Exhibits "B-1" thru "B-25".

The drums of capacitors were weighed by the warehouse foreman and sent to the third floor of the warehouse for storage.

On August 30, 1983, they were delivered to the capacitor processing room and acknowledged as received by the processing room superintendant.

A "work order" from the business office, Exhibit "C", was delivered to the processing room the same date.

The capacitors contained in the drums were processed the same date and a "capacitor processing log", Exhibits "D-1" and "D-2", were simultaneously prepared.

During the processing, the metal from the capacitors was decontaminated in a vapor degreaser and swab tests were run on every 10th shell. The two tests made on the metal from this order were run on the Gas Chromatograph and the results on the tests (AR132 and AR132) showed less than 0.01 mg per 100 sq. centimeter contaminate as evidenced by the readings attached hereto as Exhibits "E-1" and "E-2" respectively.

Upon completion of processing, the oil and debris were packed in DOT approved drums and re-stored on the third floor of the warehouse. The cores were shredded and placed in liners in fibre drums and then in DOT approved drums and re-stored on the third floor of the warehouse for shipment.

The original material had arrived at our dock on manifest number 0176, Exhibit "F", attached hereto.

EXPLANATION OF PAPERWORK ON RANDOM SELECTED GENERATOR

Page Two

On October 6, 1983, the oil from the capacitors was shipped to SCA Chemical Services for incineration. The shipment was double-manifested on Illinois manifest number 0831791 and our manifest number 0534 respectively, herein identified as Exhibits "G" and "H", which were accompanied by an addendum identified herein as Exhibit "I".

Upon receipt at SCA in Chicago, the load was weighed in and the weight ticket evidencing this is attached as Exhibit "J".

On October 16, 1983, the oil was incinerated as evidenced by Exhibit "K" and "K-1".

On November 30, 1983, the shredded cores were shipped to SCA at Chicago for incineration as confirmed by Illinois manifest number 0847089 and our manifest number 0623 with an attached addendum and their receipt is evidenced by the weight ticket, Exhibits "L", "M", "N", and "O" respectively.

Destruction by incineration was accomplished December 3, 1983, as shown by Exhibits "P" and "Q".

On November 25, 1983, waste from the processing was sent to U.S. Ecology Landfill at Beatty, Nevada, under U.S. Ecology manifest number 6458 and our manifest number 0620 with attached addendum identified as Exhibits "R", "S", and "T" respectively.

We received back "Material Transfer Form" number 1468 evidencing the receipt of this waste attached hereto as Exhibit "U".

Further evidence of receipt and burial by U.S. Ecology is provided by their invoice number 33-12819, Exhibit "V" herein.

The foregoing presents a "birth to death" description of the handling of this representative transaction.

If there are any questions concerning the paperwork involved, please let us know.

EXHIBIT A

ORDER FORM

Generator:

Company Name: Lasciando County REMC.

Mailing Address: P.O. Box 588, Warsaw, IN 46580

Shipping Address: _____

Area Code: _____ Telephone Number: _____

Shipper Number: _____

Carrier Number: _____

12 Digit EPA Number: _____

Contact: Mr. Gandy

Material to Be Picked Up:

8 Drums P.C.B. Contaminated Capacitors

Need Adsorbent: _____ Yes _____ No ☒ # _____

Need Crates: _____ Yes _____ No ☒ # _____

Need Drums: _____ Yes _____ No ☒ # _____

(specify oil or wide mouth)

The above adsorbent, crates and drums are loaded.

WAREHOUSE FOREMAN

CAPACITOR INVENTORY, PACKING AND SHIPPING LIST

MANIFEST # 0176

GENERATOR Los Angeles County P.E.M.C.

SERIAL # 318044

MANUFACTURER General Electric

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM 0033126

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 10725 (781)

KVAR's 100

LOCATION IN WAREHOUSE 7th Floor (1-28-83)

SENT TO CAPACITOR ROOM ON: 8/30/83

• 10725 Co. (0623)
Quartz 109-11-1

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

TEST RESULTS

• Partial Drum R
Quartz #3 (0534)
504

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

• 19 blue W
Quartz #19 (0620)
USE

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

• 20750 INSULATORS
Quartz #20 (0620)
USE

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176GENERATOR Kosciusko County BEACSERIAL # 318062MANUFACTURER General Electric

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C03176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 2425.781KVAR's 100

LOCATION IN WAREHOUSE

3rd Floor (1-28-83)

SENT TO CAPACITOR ROOM ON:

8/30/83# 10725 Co.SENT TO WAREHOUSE ON 8/30/83Drum #5 109-114 (0623)LOCATION 3rd FloorTEST RESULTS# Initial Drum RSENT TO WAREHOUSE ON 8/30/83Drum #3 (0534) SC4LOCATION 3rd Floor# 19 lbs WSENT TO WAREHOUSE ON 8/30/83Drum #19 (0620) 45ECLOCATION 3rd Floor# 2450SENT TO WAREHOUSE ON 8/30/83Drum #23 (0620) 45ECLOCATION 3rd Floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176GENERATOR Kosciusko County REMCSERIAL # 318011MANUFACTURER General Electric

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C033176

• _____

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 30x25 (17)KVAR's 100LOCATION IN WAREHOUSE 7th floor (1-28-83)SENT TO CAPACITOR ROOM ON: 8/30/83• 10x25 Co.

CORES

Serial # 109-114 (0623)SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floorTEST RESULTS• Partial Drum R

OIL

Serial # 3 (0531)
50ASENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor• 19.1lb W

DEBRIS

Serial # 19 (01/20)
USFCSENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor• 20x50 INSULATORSSerial # 23 (0620)
USFCSENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176

GENERATOR Kosciusko County AEMC

SERIAL # 318221

MANUFACTURER General Electric

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 412.5 (18)

KVAR's 100

LOCATION IN WAREHOUSE 2nd floor (1-28-83)

SENT TO CAPACITOR ROOM ON: 8/30/83

10725 Co. _____

SENT TO WAREHOUSE ON 8/30/83

Debris 109-114 (0623)

LOCATION 3rd floor

TEST RESULTS

Partial drum R

SENT TO WAREHOUSE ON 8/30/83

Oil drum #3 (0534) SCA

LOCATION 3rd floor

19 lbs W

SENT TO WAREHOUSE ON 8/30/83

Debris drum #19 (0620) USEC

LOCATION 3rd floor

27.50 I

SENT TO WAREHOUSE ON 8/30/83

Insulators drum #23 (0620) USEC

LOCATION 3rd floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176GENERATOR Kosciusko County REIDSERIAL # K318038MANUFACTURER General Electric

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C033126

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 50x25(78)KVAR's 100LOCATION IN WAREHOUSE 7th floor (1-28-83)SENT TO CAPACITOR ROOM ON: 8/30/83# 10725 Co. _____SENT TO WAREHOUSE ON 8/30/83Drum # 5, 09-114 (1623)LOCATION 3rd floorTEST RESULTS# Partial Drum RSENT TO WAREHOUSE ON 8/30/83Drum # 3 (0534)
SEALOCATION 3rd floor# 19 lbs WSENT TO WAREHOUSE ON 8/30/83Drum # 19 (1620)
USBCLOCATION 3rd floor# 20x50SENT TO WAREHOUSE ON 8/30/83Drum # 23 (10620)
USBCLOCATION 3rd floor

EXHIBIT B()

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176

GENERATOR

Lasciuska County DEAC

SERIAL # K318068

MANUFACTURER

General Electric

PALLET _____

DRUM

8

SINGLE _____

ON PALLET _____

ON DRUM C033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 40x25(18)

KVAR's 100

LOCATION IN WAREHOUSE

7th floor (1-28-83)

SENT TO CAPACITOR ROOM ON:

8/30/83

• 10x25 Co.
CORES

Drum #5 709-114 (0623)

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd floor

TEST RESULTS

• Initial Drum R
OR
Drum #3 (0534)
SCA

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd floor

• 19 lbs W
DEGREES
Drum #19 (0620)
45EC

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd floor

• 20x52 I
INSULATORS
Drum #23 (0620)
45EC

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 5176

GENERATOR

Kosciusko County REMCSERIAL # K318037

MANUFACTURER

General Electric

PALLET _____

DRUM

8

SINGLE _____

ON PALLET _____

ON DRUM

CC33176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single

70/25-78

KVAR's

100

LOCATION IN WAREHOUSE

7th Floor (1-28-83)

SENT TO CAPACITOR ROOM ON:

8/30/83# 10725 Co.

CORES

SENT TO WAREHOUSE ON

8/30/83Item # '09-114' (0623)

LOCATION

3rd Floor# Partial Item R

OIL

Item # 3 (0534)
SL4

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor# 19 lbs W

DEBRIS

Item # 19 (0620)
USFC

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor# 20750 I

INSULATORS

Item # 23 (0622)
USFC

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor

TEST RESULTS

YC 130.
 Resistor 1.11 MΩ
 per 100% Centimeter
 40 test on oil
 asked as per label

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176

GENERATOR Kosciusko County REMC

SERIAL # K318048

MANUFACTURER General Electric

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C033126

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 80x25 (100)

KVAR's 100

LOCATION IN WAREHOUSE 7th floor C1-28-831

SENT TO CAPACITOR ROOM ON: 8/30/83

10x25 Co.

SENT TO WAREHOUSE ON 8/30/83

Drum #5 109-114 (0623)

LOCATION 3rd floor

TEST RESULTS

Partial Drum R
Drum #3 (05-11)
SC4

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd floor

19 lbs W
Drum #19 (0620)
USBC

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd floor

20x50
INSULATORS
Drum #23 (0620)
USBC

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176 GENERATOR Loscuski County REMC
 SERIAL # BE 781895 MANUFACTURER Sungame
 PALLET _____ DRUM 8 SINGLE _____
 # ON PALLET _____ # ON DRUM C033176 # _____

WEIGHT: pallet _____ KVAR's _____
 drum _____ KVAR's _____
 single 90x25(13) KVAR's 100
 LOCATION IN WAREHOUSE 7th floor (1-28-83)
 SENT TO CAPACITOR ROOM ON: 8/30/83

10x25 Co. SENT TO WAREHOUSE ON 8/30/83
cores (0623) LOCATION 3rd floor
units 109-114

TEST RESULTS

(Partial Drum) R SENT TO WAREHOUSE ON 8/30/83
unit #3 OR (0534) LOCATION 3rd floor
SCA

19 lbs W SENT TO WAREHOUSE ON 8/30/83
DEBRIS (0622) LOCATION 3rd floor
unit #19 US EC

20x50 SENT TO WAREHOUSE ON 8/30/83
INSULATORS (0622) LOCATION 3rd floor
unit #23 US EC

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176GENERATOR Kosciusko County WEINCSERIAL # BP 781896MANUFACTURER Sangam

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM CO33176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 110x25-430KVAR's 100

LOCATION IN WAREHOUSE

7th Floor (1-28-83)

SENT TO CAPACITOR ROOM ON:

8/30/83• 10x25 Co.
CORES (0623)
Drum # 109-114

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd FloorTEST RESULTS• Horizontal Drum R
OIL (0534)
Drum # 3 SC-A

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor• 19 lbs W
DEBRIS (0620)
Drum # 19 USEC

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor• 20x50 I
INSULATORS (0620)
Drum # 03 USEC

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor

EXHIBIT B (

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176

GENERATOR Wiscasset County REMC

SERIAL # BP 782147

MANUFACTURER Sangam

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM 033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 10x25 (130)

KVAR's 100

LOCATION IN WAREHOUSE 7th Floor (1-28-83)

SENT TO CAPACITOR ROOM ON: 8/30/83

• 10x25 Co.
CORES (0623)
Run # 104-114

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

TEST RESULTS

• Actual Drum R
ON (0524)
Run # 113

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

• 19 lbs W
DEBRIS (0620)
Run # 119 4580

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

• 20x50
INSULATORS (0620)
Run # 113 4580

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0/76

GENERATOR LORENZO ZUNY REINE

SERIAL # BP 280 779

MANUFACTURER Sengme

PALLET_____

DRUM 8

SINGLE _____

● ON PALLET_____

● ON DRUM C033176

WEIGHT: pallet_____

KVAR's _____

drum _____

KVAR's _____

single day 25 (130)

KVAR's 100

LOCATION IN WAREHOUSE

7th Floor C1-28-83

SENT TO CAPACITOR ROOM ON:

8/3c/83

• 10x25 Co

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

Coastal Breeze

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

Glin

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

• Page 50

SENT TO WAREHOUSE ON 8/90/83

LOCATION 3rd Floor

TEST RESULTS

No testea del
resaca por la noche

Swale Nest

GC 133

less than 1.0 mB
per 100 sq. centimeter

EXHIBIT B(

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # D176

GENERATOR Louisiana County REMC

SERIAL # BP781977

MANUFACTURER Sengco

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 13 x 25 U30

KVAR's 100

LOCATION IN WAREHOUSE

7th floor (1-28-83)

SENT TO CAPACITOR ROOM ON:

8/30/83

• 10725 Co.

SENT TO WAREHOUSE ON 8/30/83

CORES

(0623)

LOCATION 3rd floor

TEST RESULTS

• Aluminum R

SENT TO WAREHOUSE ON 8/30/83

OR

(0534)

LOCATION 3rd floor

Aluminum #3 (0534) C.A.

• 14 lbs W

SENT TO WAREHOUSE ON 8/30/83

DEBRIS

(0430)

LOCATION 3rd floor

Aluminum #19 USEC

• 2 x 50

SENT TO WAREHOUSE ON 8/30/83

INSULATORS

(0620)

2 1 1 1 1

Aluminum #19 (0620)

EXHIBIT B

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176

GENERATOR

Losemusko County REme

SERIAL # BP782144

MANUFACTURER

Sangam-e

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C033126

0 _____

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 140x25 130

KVAR's 00

LOCATION IN WAREHOUSE

7th Floor (1-28-83)

SENT TO CAPACITOR ROOM ON:

8/30/83

• 10x25 Co.
CORES (0623)
Drum #5 104-114

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

TEST RESULTS

• Partial Drum R
Drum #3 (12534)
SC4

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

• 19lb W
DEBRIS (0620)
Drum #19 USEC

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

• 20x50
RESISTORS (0620)
Drum #23 USEC

SENT TO WAREHOUSE ON 8/30/83

LOCATION 3rd Floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176GENERATOR KOSCIUSKO COUNTY ELECSERIAL # BP 70820MANUFACTURER Sangam

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM 033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 1507.25 (130)KVAR's 106

LOCATION IN WAREHOUSE

7th floor (1-28-83)

SENT TO CAPACITOR ROOM ON:

8/30/83

• 1 of 25 Co.
Drum #5 109-114 (0623)
 CORES

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor

TEST RESULTS

• Partial Drum R
Drum #3 (0534)
 OL
 SET

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor

• 19 lbs W
Drum #17 (0620)
 DEBRIS
 USED

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor

• 2 of 50
Drum #23 (0620)
 INSULATORS
 USED

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST 1GENERATOR Kosciusko County REINC.SERIAL 367MANUFACTURER Sengco

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 825 (130)KVAR's 100LOCATION IN HOUSE1st floor C-28-8-1SENT TO CAP ROOM ON:8/30/83

107 Co.
unit # 5 (0623)

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floorTEST RESULTS

Portia Drum R
unit # 3 (0534)
SEA

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor

19 W
unit # 5 (0620)
USEC

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor

209 (0620)
unit # 5 USEC

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176

GENERATOR

Kosciusko County REMCSERIAL # 0270495

MANUFACTURER

MacLean Edison

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM 0033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 170725 (146)KVAR's 100

LOCATION IN WAREHOUSE

7th floor (1-28-83)

SENT TO CAPACITOR ROOM ON:

8/30/83# 10725 Co.SENT TO WAREHOUSE ON 8/30/83

LOCATION

3rd floorTEST RESULTS# Partial Run RSENT TO WAREHOUSE ON 8/30/83

LOCATION

3rd floor# 1166 WSENT TO WAREHOUSE ON 8/30/83

LOCATION

3rd floor# 20750 INSULATORSSENT TO WAREHOUSE ON 8/30/83

LOCATION

3rd floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176GENERATOR Kosciusko County RE/MCSERIAL # 10817528MANUFACTURER Willow Elexon

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 10825 (105)KVAR's 50LOCATION IN WAREHOUSE Hutlaw (1-28-83)SENT TO CAPACITOR ROOM ON: 8/30/83# 10825 Co. _____SENT TO WAREHOUSE ON 8/30/83Drum # 109-114 ^{CORES} 10623LOCATION 3rd floorTEST RESULTS# Partial Drum RSENT TO WAREHOUSE ON 8/30/83Drum # 3 ^{OIL} (1534)LOCATION 3rd floor# 19 lbs WSENT TO WAREHOUSE ON 8/30/83Drum # 19 ^{DEBRIS} (1626)
USFCLOCATION 3rd floor# 20750SENT TO WAREHOUSE ON 8/30/83Drum # 23 ^{INSULATORS} (11020)
USFCLOCATION 3rd floor

EXHIBIT B(

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176

GENERATOR Kosciusko County RE MC

SERIAL # 6817518

MANUFACTURER MacLean Edison

PALLET _____

DRUM 8

5" GLE _____

ON PALLET _____

ON DRUM 1033126

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 190725165 KVAR's 50

LOCATION IN WAREHOUSE 7th floor (1-28-83)

SENT TO CAPACITOR ROOM ON: 8/30/83

• 1-725 Co.

SENT TO WAREHOUSE ON 8/30/83

Summit #5 10-9-11-1 (1020)

LOCATION 3rd floor

TEST RESULTS

• Robert L. Sum R

SENT TO WAREHOUSE ON 8/30/83

Summit #3 0534

LOCATION 3rd floor

• 19-11-1 W

SENT TO WAREHOUSE ON 8/30/83

Summit #19 (0620) U7EC

LOCATION 3rd floor

• 20750

SENT TO WAREHOUSE ON 8/30/83

Summit #23 (0620) U7EC

LOCATION 3rd floor

EXHIBIT B-20

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176

GENERATOR

KOSCIUSKO County DEINC

SERIAL # 1816529

MANUFACTURER

Mathew Edison

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM 033126

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 20072545

KVAR's 50

LOCATION IN WAREHOUSE

7th Floor (1-28-83)

SENT TO CAPACITOR ROOM ON:

8/30/83

1525 Co.

Sum # 5 109-11 (0023)

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor

TEST RESULTS

Initial Sum R

Sum # 3 (0596) 504

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor

19 lbs W

Sum # 17 (1620) 11580

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor

Box 50 I

Sum # 123 (0620)

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176GENERATOR Kosciusko County KEMCSERIAL # 0271556MANUFACTURER McGraw Edison

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

angle 21 deg 25' 10S KVAR's 100LOCATION IN WAREHOUSE 7th Floor (1-28-83)SENT TO CAPACITOR ROOM ON: 8/30/83# 10/25 Co.

CORES

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd FloorTEST RESULTSDrum # 5109-114 (0623)# Partial Drum R

OIL

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd FloorDrum # 3 (0534)

S.P. 4

19 lbs W

DEBRIS

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd FloorDrum # 19 (0620)

LISEC

209.50 I

INSULATORS

SENT TO WAREHOUSE ON 8/30/83LOCATION 3rdDrum # 23 (0620)

LISEC

EXHIB

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 2176GENERATOR Los Angeles County REMCSERIAL # C271537MANUFACTURER MacLean Edison

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 220x15x105KVAR's 100LOCATION IN WAREHOUSE 7th floor (1-28-83)SENT TO CAPACITOR ROOM ON: 8/30/83# 10425

CORES

Co. (10623)SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor

TEST RESULTS

10425

OIL

R (10524)SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor# 19llw

DEBRIS

W (10620)SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor# 20750

INSULATORS

I (10620)SENT TO WAREHOUSE ON 8/30/83LOCATION 3rd floor

EXHIBIT B

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0126

GENERATOR Travis Co County V.E. III C

SERIAL # PP 781945

MANUFACTURER Sanjane

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM 0033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 230x2-121

KVAR's 100

LOCATION IN WAREHOUSE

7th floor (1-28-83)

SENT TO CAPACITOR ROOM ON:

8/30/83

• 10x25 Co.

CORES

Drum # S104-114 (0.023)

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd floor

TEST RESULTS

• Partial Drum R

OR

Drum # 3 (0.534)
SCA

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd floor

• 19 lbs W

DEBRIS

Drum # 19 (0.624)
USEC

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd floor

• 20x50 I

INSULATORS

Drum # 3 (1.620)
USEC

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd floor

CAPACITOR INVENTORY, PROCESSING AND SHIPPING LIST

MANIFEST # 0176

GENERATOR

Los Alamos County QEMCSERIAL # 69065352

MANUFACTURER

Westinghouse

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM C033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 24025 (65)KVAR's 50

LOCATION IN WAREHOUSE

7th Floor (1-28-83)

SENT TO CAPACITOR ROOM ON:

8/30/83• 10425 Co. (10623)Serial # 5 104-114

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd FloorTEST RESULTS• Partial Drum RSerial # 3 OR (05-1) S.C.A.

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor• 19llw WSerial # 19 DEBRIS (0620) USEC

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor• 24250 INSULATORS (10620)Serial # 23 USEC

SENT TO WAREHOUSE ON

8/30/83

LOCATION

3rd Floor

MANIFEST # 0176

GENERATOR Los Angeles County WEMC

SERIAL # 169015381

MANUFACTURER Westinghouse

PALLET _____

DRUM 8

SINGLE _____

ON PALLET _____

ON DRUM 0033176

WEIGHT: pallet _____

KVAR's _____

drum _____

KVAR's _____

single 250/25 (68)

KVAR's 50

LOCATION IN WAREHOUSE 7th floor (1-28-83)

SENT TO CAPACITOR ROOM ON: 8/30/83

• 10/25 Co.
Alum # 5104-116 CORES (0623)

SENT TO WAREHOUSE ON 8/30/83
LOCATION 3rd floor

TEST RESULTS

• Partial Drum R
Alum # 3 CO534
SOA

SENT TO WAREHOUSE ON 8/30/83
LOCATION 3rd floor

• 19 lbs W
Alum # 19 DEBRIS (0620)
USEC

SENT TO WAREHOUSE ON 8/30/83
LOCATION 3rd floor

• 20.5 50
Alum # 23 INSULATORS (0620)
USEC

SENT TO WAREHOUSE ON 8/30/83
LOCATION 3rd floor

NO. C 203

2100 WYANDOTTE KANSAS CITY, MO. 64108
816-221-3660

GENERATOR 1-60JUSG MOUNTY R MC
ADDRESS P.O. BOX 583 MARJAN STATE INDIANA ZIP 46580
MANIFEST # 0176
DATE RECEIVED 1-31-80
QUANTITY RECEIVED _____ OIL 3 DRUMS CAPS _____ TRANS. _____ DEBRIS _____

QUANTITY RECEIVED FOR DEST. 83 DRUMS CAPS

WEIGHT 1010 KILOGRAMS 2210 POUNDS

DATE RECEIVED FOR DESTRUCTION 8-24-83

DATE OF FINAL DESTRUCTION _____

NUMBER OF UNITS WITH SERIAL NUMBERS _____

NUMBER OF UNITS WITHOUT SERIAL NUMBERS _____

SERIAL NUMBER OF UNITS _____

AMOUNT OF ASKAREL PRODUCED _____

AMOUNT OF CORES PRODUCED _____

AUTHORIZED SIGNATURE

WASCO COUNTY REMC WARSAW, IN

JOE INC. OF MISSOURI

LANSING CITY PLANT

CAP OR PROCESSING LOG

DATE: 8 30 83

PAGE 1 OF 2

2

WAREHOUSE NUMBER	MFR	SERIAL NUMBER @ ITEM	KVAR	WEIGHT	NOTES
CO33176D	GE	K318044	10.0	7.8	KASCUSKO
	GE	K318062	10.0	7.8	County Remc
	GE	K318011	10.0	7.8	
	GE	K318021	10.0	7.8	
	GE	K318038	10.0	7.8	
	GE	K318068	10.0	7.8	
	GE	K318037	10.0	7.8	
	GE	K318048	10.0	7.8	
	SG	BP781895	10.0	13.0	
	SG	BP781896	10.0	13.0	
	SG	BP782147	10.0	13.0	
	SG	BP780779	10.0	13.0	
	SG	BP781977	10.0	13.0	
	SG	BP782144	10.0	13.0	
	SG	BP780820	10.0	13.0	
	SG	BP782367	10.0	13.0	
	ME	C270495	10.0	14.0	
	ME	6817528	50	6.5	
	ME	6817518	50	6.5	
	ME	6816529	50	6.5	
	ME	C271556	10.0	10.5	

WASHAW, I.D.

Capacitor Processing Log

PAGE 2 OF 2

১৭৮৮

EXHIBIT E-1

ATTEN

5

CPATE 1-8

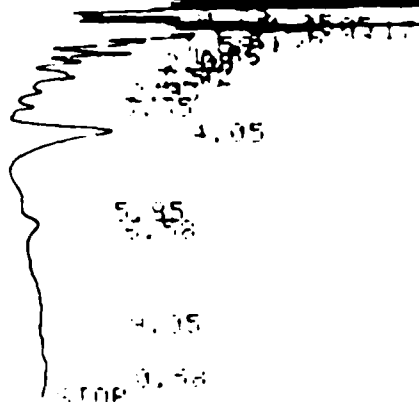
AR 132

SN GEK 318037

8-30-83

8.7782

START 09.07.22.18.



C-RIB

SMPL # 00

FILE # 1

REPT # 3

METHOD 41

#	NAME	TIME	CONC	MK	AREA
0		0.79	2.7224		11954
0		0.95	5.3381		23405
0		1.05	13.0133	V	57142
0		1.17	15.1957	V	66726
0		1.56	7.6335	V	33519
0		1.51	3.4419	V	15114
0		1.59	2.7198	V	11943
0		1.86	4.891		21477
0		2.08	2.4414		10720
0		2.42	2.1313		9359
0		2.53	2.8599	V	12558
0		2.93	1.0517		4618
0		3.35	1.2718		5584
0		4.05	24.3494		106920
0		5.85	1.5817		6945
0		6.58	3.3951	V	14908
0		7.05	3.8191		16770
0		10.58	2.1498	V	9440
	TOTAL		100		439109

LEVEL 5589

1.4 mg

< 0.01 mg

HAZARDOUS WASTE MANIFEST

EXHIBIT F

PCB INC. OF MISSOURI EPA-7-KANSAS
PCB INC. OF MISSOURI EPAMOD# 980633044

0176

MANIFEST DOCUMENT NUMBER

PCB INC. OF MISSOURI
NAME OF CARRIER

(SCAG)

SHIPPER NUMBER

CARRIER NUMBER

IDENTIFICATION

	12 DIGIT EPA ID #	COMPANY NAME, MAILING ADDRESS, AND TELEPHONE NUMBER	DATE
GENERATOR/SHIPPER		PCB INC. OF MO./KOSCIUSKO COUNTY REMC P.O. BOX 588 WARSAW, IN 46580	
TRANSPORTER #1		PCB INC. OF MO. 2100 WYANDOTTE K.C., MO. 64108	
TRANSPORTER #2 (if required)			
TSD TREATMENT STORAGE OR DIS- POSAL FACILITY		PCB INC. OF MO. 2100 WYANDOTTE K.C., MO. 64108	
TSD TREATMENT STORAGE OR DIS- POSAL FACILITY			

WASTE INFORMATION

NO. OF UNITS CONTAINER TYPE	HM	EPA HAZ WASTE ID #	DESCRIPTION AND CLASSIFICATION (Proper Shipping Name, Class and Identification Number per 172.101, 172.202, 172.203)	UN # or NA #	EXEMPTION OR NO LABELS REQUIRED	FLASH POINT (IN °C) WHEN REQ'D	UNITS WT/VOL	TOTAL QUANTITY	RATE
8 DRUMS		PCB-8	PCB CONTAMINATED CAPS PCB CONTAMINATED TRANS PCB CONTAMINATED DIRT PCB CONTAMINATED DEBRIS PCB CONTAMINATED OIL	2315	PCB & ORM-E RQ				

SPECIAL HANDLING INSTRUCTIONS PREVENT PERSONAL CONTACT/
DAM UP SPILLS/PREVENT WATER CONTAMINATION

If an RC commodity is spilled on a waterway or adjoining land, the
must be promptly reported to the Federal government at 1-800-424-2675
(toll free) or 202-426-2675 (toll call). If other DOT Hazardous Materials are
created a serious situation, call shipper's telephone number or C
1-800-424-9300 immediately.

COMMENTS

CONTACT 605-256-6254 IF SPILLAGE OCCURS

PLACARDS TEN

Yes ☐ No ☐

On "Collect on Delivery" shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1

REMIT
C.O.D. TO:
ADDRESS

COD

AMT \$

COD FEE
PREPAID ☐
COLLECT ☐ \$

TOTAL
CHARGES \$

FREIGHT CHARGE

Freight may be paid
by bill of lading or
invoice. If not paid
by bill of lading, it
must be paid by invoice.

Note—Where the rate is dependent on value, shippers
are required to state specifically in writing the agreed or
declared value of the property.
The agreed or declared value of the property is hereby
specifically stated by the shipper to be not exceeding

"If the shipment moves between two ports by
a carrier by water, the law requires that the
bill of lading shall state whether it is
"Carrier's or shipper's weight."

"Under the Section 7 of the Commerce Act, this shipment is to be delivered to
the consignee without recourse to the carrier. The carrier shall sign the
following statement:
The carrier shall not make delivery of this shipment without payment of
freight and an equal local charge."

(Signature of Consignee)

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this
Bill of Lading, the property described above in apparent good order, except as noted (contents
and condition of contents of packages unknown), marked, consigned, and delivered as
indicated above which said carrier (the word carrier being understood throughout this contract
as meaning any person or corporation in possession of the property under the contract) agrees
to carry to its usual place of delivery or said destination, if on its route, otherwise to deliver to
another carrier on the route to said destination. It is mutually agreed as to each carrier of all or

any of said property over all or any portion of said route to destination and as to each party at
any time interested in all or any said property that every service to be performed hereunder
shall be subject to all the bill of lading terms and conditions in the governing classification on
the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in
the governing classification and the said terms and conditions are hereby agreed to by the
shipper and accepted for himself and his assigns.

CERTIFICATION

This is to certify that the above-named materials are properly
classified, described, packaged, marked and labeled, and are in
proper condition for transportation according to the applicable
regulations of the Department of Transportation and the U.S. En-
vironmental Protection Agency

This is to certify acceptance of the hazardous waste shipment.

TRANSPORTER #1 SIGNATURE & DATE

TRANSPORTER #2 SIGNATURE & DATE (if required)

This is to certify acceptance of the hazardous waste for treatment,
storage or disposal.

GENERATOR'S SIGNATURE

DATE

TSDF SIGNATURE

DATE

HAZARDOUS WASTE MANIFEST

C HAZAL - NOT NEGOTIABLE

0534

MANIFEST DOCUMENT NUMBER

EXHIBIT H PCB INC. OF MISSOURI 2100 WYANDOTTE K.C. MO. 64108
PCB INC. OF MISSOURI 2100 WYANDOTTE K.C. MO. 64108

SHIPPER NUMBER

PCB INC. OF MISSOURI

NAME OF CARRIER

(SCAC)

CARRIER NUMBER

IDENTIFICATION

12 DIGIT EPA ID#	COMPANY NAME MAKING ADDRESS AND TELEPHONE NUMBER	DATE SHIP OR RECEIVED
	PCB INC. OF MISSOURI 2100 WYANDOTTE K.C. MO. 64108	10/6/83
	PCB INC. OF MISSOURI 2100 WYANDOTTE K.C. MO. 64108	
	SCA 11700 S. SRO BY 151A D AVE. CHICAGO, ILL 60617	

WASTE INFORMATION

M	EPA HAZ WASTE ID#	DESCRIPTION AND CLASSIFICATION (Proper Shipping Name, Class and Identification Number per 172.101, 172.202, 172.203)	UN# or NA#	EXEMPTION OR NO LABELS ALLOWED	FLASH POINT OR WHEN REQ'D	UNITS WT/VOL	TOTAL QUANTITY	RATE	CHARGE FOR UN#
	PCB	PCB CONTAMINATED OIL	2315	PCB & ORN-E RQ					
		PCB CONTAMINATED CORES							

LINK INSTRUCTIONS PREVENT PERSONAL CONTACT
SPILLS/ PREVENT WATER CONTAMINATION

If an RC commodity is spilled on a waterway or adjoining land, the spill must be promptly reported to the Federal government at 1-800-424-6300. If you are not in the U.S. call 1-800-424-6300. If other DOT Hazardous Materials are discharged, call 1-800-424-6300. If other DOT Hazardous Materials are discharged, call 1-800-424-6300. If other DOT Hazardous Materials are discharged, call 1-800-424-6300.

CONTACT 605-256-6254 IF SPILLAGE OCCURS

PLACARDS TENDER

very shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1

Yes ☐ No ☐

<p>dependent on what shipment is being shipped or by the due of the property is hereby agreed to be not exceeding</p> <p>4</p>	<p>"If the shipment moves between two parts by a carrier by water, the law requires that the bill of lading shall state whether it is "Carrier's or Shipper's weight."</p>	<p>COD Arr. S</p> <p>Subject to Section 7 of the conditions of this shipment is to be delivered to the carrier as without recourse on the consignee. The consignee shall sign the bill of lading.</p> <p>The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.</p> <p>Signature of Consignor</p>	<p>COD FEE: PREPAID <input type="checkbox"/> COLLECT <input type="checkbox"/></p>
			<p>TOTAL CHARGES \$</p> <p>FREIGHT CHARGES \$</p> <p>Freight paid by shipper or consignee at origin or other port <input type="checkbox"/></p>

subject to the regulations and tariffs in effect on the date of the issue of this bill of lading, the property described above in accordance with order, except as noted (consent of all carriers of packages unknown), marked, consigned and delivered as to which said carrier (the word carrier having understood throughout this contract a person or corporation in possession of the property under the contract) agrees to be liable for delivery of said destination, if on its route, otherwise to deliver to the route to said destination. It is mutually agreed as to each carrier of all or

any of the property over all or any portion of said route to destination and as to each party at any time, arrested on all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

CERTIFICATION

fy that the above-named materials are properly ribed, packaged, marked and labeled, and are in n for transportation according to the applicable he Department of Transportation and the U.S. En- necti agency

This is to certify acceptance of the hazardous waste shipment.

TRANSPORTER #1 SIGNATURE & DATE

TRANSPORTER #2 SIGNATURE & DATE

This is to certify acceptance of the hazardous waste for treatment, storage or disposal.

Signature of Shipper: *Willie D. Smith* DATE: *10/4/83*

Signature of Transporter: *J. Newton* DATE: *10/4/83*

Signature of Receiver: *Robert J. Deussen* DATE: *10/4/83*

EXHIBIT I

ADDENDUM TO MANIFEST NO.

0073,0015,0176,0135,0077

GENERATOR P. J. D. 100. 000. 000.

MANIFEST 0056 0011 0006 0029 0030

ADDRESS 2100 Westwood CITY Manassas ST. VA ZIP 64108

DESCRIPTION OF SHIPMENT 4 DRUMS OF OIL

ALL TRANSFORMERS DRAINED AND FLUSHED

TEST	PPM	SERIAL#	SHIPPING WEIGHT	KVAR
------	-----	---------	-----------------	------

4 DRUMS OF FUEL CAPACITOR OIL

SHIPPER _____ DATE _____

SIGNATURE Anders E. Andersen TITLE Asst. Sec.

SHIPPED TO _____ CITY _____ ST _____

EXHIBIT J

WEIGH TICKET

	<u>WEIGHT</u>	<u>TIME</u>	<u>DATE</u>	<u>ID #</u>
1ST WT.	00220 LB	08:20 PM	10/06/83	100
RECALL	00220 LB	RECALLED WEIGHT		100
2ND WT.	00220 LB	10:24 PM	10/06/83	
	MEMORY			
GROSS	00220	1	SEQ #	22
TARE	11140			
NET	00080		CONT #	100
			<u>TOTAL</u>	
TONS	1.54	\$	UNIT	\$
				<u>1</u>
				<u>R</u>
				<u>2</u>



SCA Chemical Services
SCA Chemical Services
11700 S. Stony Island Avenue
Chicago, Illinois 60617
(312) 646-5700

revenue

f4-0772

SCA WORK ORDER NUMBER

PCB INC.

GENERATOR

PCB INC. OF Mo.

TRANSPORTER

#

100

37440
6/8/87TO BE COMPLETED BY
WASTE GENERATOR

STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
2200 CHURCHILL ROAD, SPRINGFIELD, ILLINOIS 62706
(217) 782-6760

0847081

Authorization Number 0 0 0 0 0 0

EXHIBIT L

SPECIAL WASTE HAULING MANIFEST

B INC. OF MISSOURI 2100 Wyandotte 81 62 2 13 660 9 2 9 0 9 5 0 4 6 0
(Company Name) Address Phone Number Generator Number
Kansas City MO 64108 MOD 98 0 6 3 3 0 4
City State Zip EPA Number

WASTE HAULER(S)

00

PCB INC. OF MISSOURI 2100 Wyandotte S W H Registration Number 1 4 4 2 0 0
Hauler Name Hauler Address 73
Kansas City, MO 64108 MOD 98 0 6 3 3 0 4 1
Phone Number EPA Number

S W H Registration Number 72

Hauler Name Hauler Address

Phone Number

EPA Number

DESTINATION -- DISPOSAL STORAGE OR TREATMENT SITE

0 3 1 6 0 0 5 8

SCA Chemical Services, Inc. 11700 Stony Island Ave. 79 Site Number
(Facility Name) Address
Chicago IL 60617 312 646 570 0 IL 00 0 6 2 2 1 2
City State Zip Phone Number EPA Number

Alternate (Facility Name)

Address

79

Site Number

City

State

Zip

Phone Number

EPA Number

TO BE COMPLETED BY
WASTE GENERATOR

POLYCHLORINATED BIPHENYLS

WASTE NAME CONTAMINATED CAPACITOR CORES

WASTE PHASE

SOLID

(Liquid Gaseous Solid)

SPECIAL WASTE BEING TRANSPORTED UNDER THIS MANIFEST IS OF THE DOT HAZARD CLASSIFICATION INDICATED IMMEDIATELY BELOW

SHIPPING DESCRIPTION

HAZARD CLASS

PCB CONTAMINATED
CAPACITOR CORES

ORM-E

UN 2 3 1 5
UN or NA Number

EPA HW Number

WEIGHT FOR
DOT USE 20,175 (LBS)
(LBS (circle one))WEIGHT FOR EPA USE MUST BE
CONVERTED TO CU YDS OR GALQUANTITY OF WASTE DELIVERED 3 6 0 0
CU YDS1 GALLONS (circle one)
2 CU YDS

METHOD OF SHIPMENT (Circle One)

(DRUMS 120)
Number

TANK TRUCK

OPEN TRUCK

OTHER (Specify)

THIS IS TO CERTIFY THAT THE ABOVE-NAMED WASTE ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND IS IN PROPER CONDITION FOR TRANSPORTATION
IN ACCORDANCE WITH THE APPLICABLE REGULATIONS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND EPA

I HEREBY AGREE TO AND CERTIFY THE ABOVE WRITTEN INFORMATION

(Authorized Signature)

DATE 11/30/83

WASTE HAULER

I HEREBY CERTIFY THAT THE ABOVE-DESCRIBED WASTE AND QUANTITY HAS BEEN ACCEPTED IN PROPER CONDITION FOR TRANSPORT AND I ACKNOWLEDGE
THE DESTINATION AS INDICATED(1) Mal. O'Hall
(Authorized Signature)

DATE 1 1 30 / 8

(2) _____
(Authorized Signature)

DATE

DISPOSAL, STORAGE, OR TREATMENT FACILITY

HAZARDOUS WASTE SUBJECT TO REG. YES NO

I HEREBY CERTIFY THAT THE ABOVE DESCRIBED WASTE AND INDICATED QUANTITY HAS BEEN ACCEPTED AT THE SITE SPECIFIED ABOVE

P. Neutron
(Authorized Signature)

DATE 12/01/8

COMMENTS OR SPECIAL INSTRUCTIONS

returned 137 / 55 gal steel over pack

IN ILLINOIS 217 / 782 3637

OUTSIDE ILLINOIS 1-800-447-7272

DISTRIBUTION PART 1 GENERATOR

PART 2 HPA

PART 3 SITE

PART 4 HAULER

PART 5 EPA

PART 6 GENERATOR

GENERATOR COPY - PART 1 - DO NOT REMOVE PART 1 FROM SET UNTIL COMPLETED.

Part Five - Contingency Plans

The most important part of a spill control plan is prevention. In this regard, personnel working with PCBs, PCB items, or in PCB areas will be trained in emergency procedures for providing first aid, notification of proper authorities, spill containment and spill clean-up and decontamination.

First Aid

Personnel working with PCBs, PCB items and PCB areas will be instructed in basic first aid and safety procedures involving PCB contact. This will be ascertained by the reading and signing of a "PCB Hazard Acknowledgement" statement by each employee and by additional instruction on the hazards of fluids containing PCBs and items contaminated by PCBs. (See Attachment #8)

The immediate concern during a containment and/or spill emergency is to minimize contamination of personnel with PCBs. Although the sequence may vary, the following procedures will be quickly accomplished:

1. Quickly assess the situation to determine if anyone is injured or contaminated by PCBs.
2. If anyone is injured and/or contaminated, the "rescuer" will quickly don necessary protective gear, and move the "victim" to a site upwind from the spill or adequately ventilated. Doors and windows should be opened, if necessary, and self-contained breathing apparatus used, if appropriate or necessary.
3. Obtain medical assistance for injured or contaminated persons. Do not leave injured or incapacitated persons alone. Always instruct someone to stay with them until proper medical assistance is provided.
4. If necessary to reduce PCB contamination, remove contaminated clothing from victims and/or rescuers, wash affected areas of the body with soap and water, and flush eyes for 15 minutes with eyewash or clean water.
5. Identify, if possible, the quantity and tradename of PCB, and type of equipment involved.

6. Secure the spill site from unauthorized personnel by roping off the area and posting warning signs.

Notification of Proper Authorities

Spills threatening/entering waterways or involving PCBs in quantities equal to or exceeding 4.54 KG or 10 pounds must be reported to the Management of PCB Disposal Systems, Inc., who will, in turn, report the spill to the EPA and/or Coast Guard. To obtain assistance, call:

1. Coast Guard National Response Center - (300) 424-8802
2. EPA - (816) 374-3778

Spill Containment

Spilled PCBs will be contained where the spill occurs. PCBs must be kept from entering storm drains, wells, water systems, and navigable waterways. To insure this, the plant processing area and storage areas will have no drains and will have double containment. In addition, all PCBs will be double contained during shipping.

Spills should be contained by following these procedures as appropriate:

1. Don appropriate protective equipment.
2. Prevent further leakage by repositioning the PCB container or by welding, overpacking, applying a temporary seal to the leak (using epoxy or a fiberglass patch kit), closing master valves or petcocks.
3. Prevent the spill from spreading by trenching or encircling the area with a dike of sand, absorbent material or, as a last resort, dirt or rags. If it is raining or rain is imminent and the spill is in a outside area, cover the spill with a plastic tarpaulin.

Spill Clean-up

Clean up spilled PCBs to remove any health or environmental hazards. Do not work alone when cleaning up. Ensure that the area is properly ventilated and that personnel are using proper safety gear. Clean up the spill by:

1. Spreading oil-absorbent material over the spill. Work the absorbent into the spill with a broom, forcing the absorbent into close contact with the spilled PCBs. Collect the used absorbent and place into PCB-labeled leak-proof containers for disposal.
2. Remove contaminated soil to a depth of at least six inches below the wet surface line. Place contaminated soil in properly labeled leak-proof containers for disposal.
3. Collecting all contaminated equipment and safety protective gear and placing them in leak-proof containers for decontamination or disposal.

Decontamination

Appropriate solvents can be used to effectively decontaminate many spill area after the great bulk of the spill has been cleaned up. Spread the solvent evenly over the spill area by using a sprayer or by sprinkling the area with solvent. (Solvents should be used in sparing amounts) Then apply absorbent material allowing time for absorption and working material in, if necessary. Remove the spent absorbent. Repeat this procedure until all the spilled PCB is removed. Collect all decontaminant material into a leak-proof container for disposal. Metal tools and other equipment can be cleaned in a vapor degreaser or by cleaning in liquid solvent.

Porous materials cannot be adequately decontaminated and must be placed in proper leak-proof containers for disposal.

Disposal

All contaminated material and equipment that cannot be cleaned up must be removed to an EPA-approved hazardous waste disposal facility.

PCB Spill Control Kits

PCB Spill Control Kits containing equipment and protective gear will be maintained at the Holden Plant and on vehicles transporting PCBs. (See Attachments #9 and #10)

Solvents

To decontaminate spill areas, kerosene, diesel fuel, trichloroethylene, toluene, xylene, and other solvents may be used.

Post-Spill Procedures

After decontamination of the spill area has been completed, take the following steps to ensure the adequate decontamination has been accomplished:

1. Collect and analyze samples of affected environmental areas (soil, water, etc.)
2. Investigate the cause of the spill and document the spill episode.
3. Take corrective measures to prevent a re-occurrence of the incident.

PCB DISPOSAL SYSTEMS
5000 E. 10TH, K.C., MO

MANIFEST No. 1983/M-

--	--	--	--

PAGE OF

OF

WAREHOUSE NUMBER	WH SITE
---------------------	------------

WEIGHT

VOLUME

PPM

**PROCESSING
DATE**

[illegible]

DISPOSAL
DATE

REMARKS

MASTER MATERIAL LOG (A)

PCB DISPOSAL SYSTEMS
5000 EAST 10TH, K.C., MO

☐ SHIFT
SUPERVISOR _____

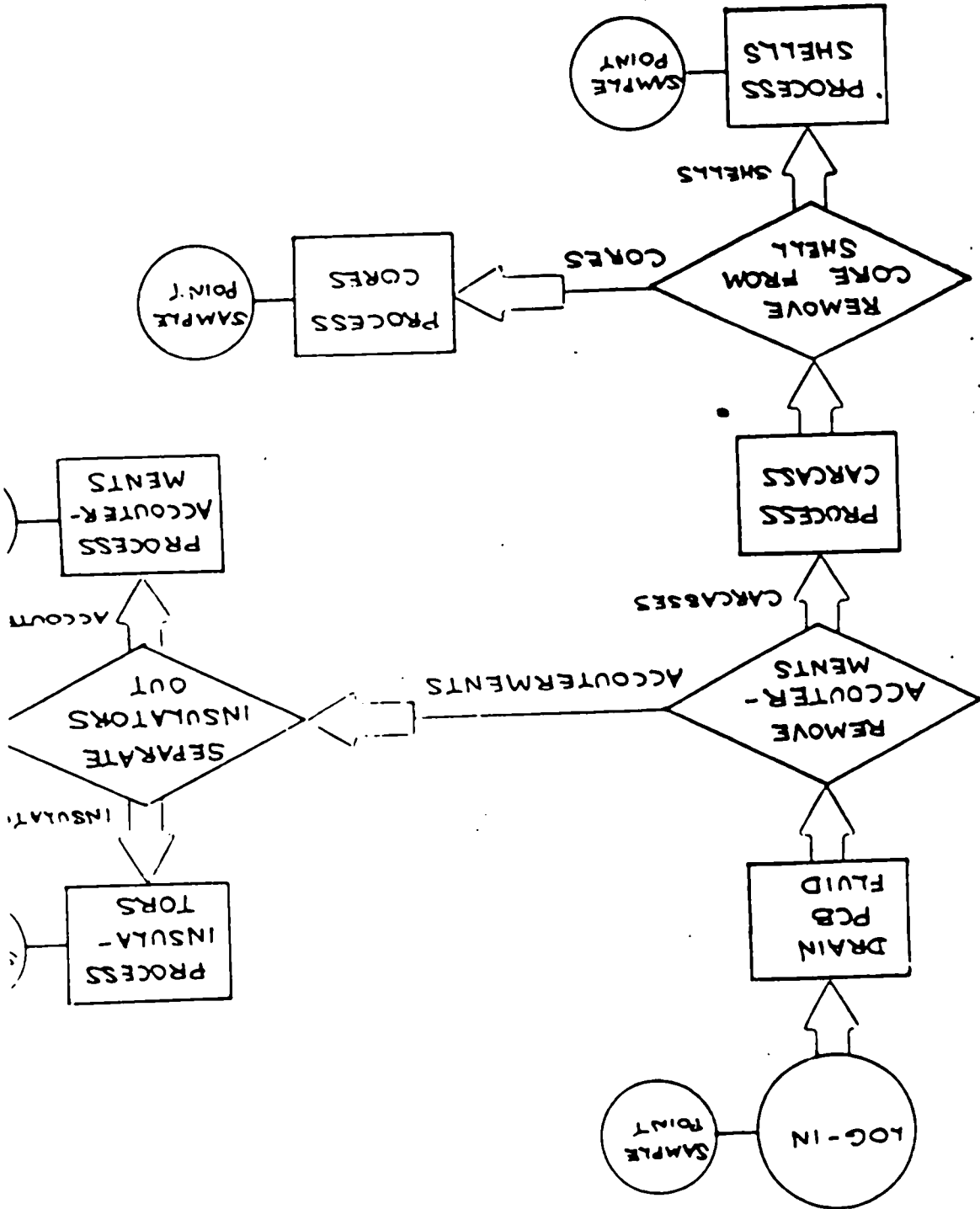


PAGE ☐☐ OF ☐☐

	WAREHOUSE NUMBER		MFR	TRANSFORMER SERIAL NUMBER		KVAR	WEIGHT	PROCESSING DATE
5								
10								
15								
20								
25								
30								
35								
40								

PCB TRANSFORMER PROCESSING

BLOCK FLOW CHART



Special Note! Attachments #4, 5, and 6 are reserved for future use and are not included in this presentation.

Attachments #4, 5, and 6
(See above note)

PCB
PLANT INSPECTION
LOG

PCB DISPOSAL SYSTEMS, INC
5000 EAST 10TH ST
K.C., MO 64127

LOT -

ASPHALT _____

FENCE/GATES _____

STORAGE AREAS

OTHER _____

BUILDING 'A' -

Roof _____

Wahls _____

CUREINGS

ELECTRICAL

AIR SYSTEM

SAFETY SIGNS

FIRE EXTINGUISHERS

EXHAUST FAN

LOADING DOCK

OTHER _____

CAPACITOR PROCESSING SYSTEM -

TABLE/VATS _____

FLOOR PANS

VAPOR DEGREASER _____

VENTILATION

OTHER _____

REACTOR -

BULK STORAGE

REACTOR _____

PLUMBING

OTHER _____

REMARKS & NOTES -

PCB HAZARD ACKNOWLEDGEMENT

NAME _____ DATE _____

1. No smoking is allowed in Processing Area
2. Immediately clean-up all spills and leaks.
3. Immediately report all accidents.
4. When suited-up in protective gear for Processing Work, stay in the Processing Area.
5. Do not enter Processing Area while it is in operation unless suited-up in protective gear.
6. Protective gear for each Work position may vary, but the designated protective gear for each position of the Processing Line must be worn while working the line.
7. Eyewash and shower areas, first-aid kit, and phone number of local medical unit must be pointed out to employees who should familiarize themselves with their locations.
8. Protective gear such as respirators, face shields, and steel-toed boots should be kept clean and monitored for contamination.
9. If skin contact is made with PCB-contaminated fluids or solvents wash with soap and water thoroughly.
10. If eye contact is made with PCB or PCB-contaminated fluids or solvents, flush with water 15-20 minutes and contact physician immediately.
11. If fluids are taken internally, immediately attend by physician.
12. Follow any additional Safety Procedures explained by Processing supervisors.

I have read the above instructions and as basis for my employment with PCB Disposal Systems, Inc., agree to acknowledge and abide by them. I have verbally received and understand instructions on the hazards of fluids containing PCBs and items contaminated by PCBs.

SIGNED: _____

S.S. # : _____

BRIEFED BY: _____

PLANT SPILL CONTROL KIT

EQUIPMENT:

2	55-Gallon Open-Top Drums
1	Crescent Wrench
1	Bung Wrench
1	Push Broom 24" Wide
1	Shop Brush
1	25-Lb Box of Rags
1	Square-Tipped 'D' Handle Shovel
1	Round-Tipped 'D' Handle Shovel
1	Box of 20 30 - Gallon Trash Bags
2	Large Bags of Absorbent
1	Manual 55 Gal. Pump w/20' Hose
1	Large Flashlight
1	1½ Gallon Hudson Sprayer
1	1' x 2' Drip Pan
1	5 Gallon Can of Kerosence
2	9' x 12' Heavy Duty Plastic Tarps
12	PCB Labels 6" x 6"
1	Roll ½" Masking Tape
1	55 Gallon Oil Drum

PROTECTIVE GEAR:

2	Pair Protective Gloves
2	X-L Rainsuits
4	Pair "Tru Touch" Gloves
2	L Rainsuits
2	Half-Face Respirators & Cartridges
2	Face-Shields
1	First Aid Kit w/eyewash
2	Pair Plastic Boot Covers
2	Pair Rubber Boots Size 12 & Size 10
2	Self-Contained or Air Supplied Breathing Apparatus

VEHICLE SPILL CONTROL KIT

EQUIPMENT:

- 2 55-Gallon Open-Top Drums
- 1 Crescent Wrench
- 1 Bung Wrench
- 1 Push Broom (12" or 18" Wide)
- 1 Shop Brush
- 1 Box of 10 30-Gallon Trash Bags
- 1 Square Tipped 'D' Handle Shovel
- 1 Metal Dust Pan
- 1 Large Flashlight
- 1 55-Gallon Manual Pump w/30' Hose
- 2 Large Bags Absorbent
- 10 Lbs. Rags
- 2 9' x 12' Heavy-Duty Plastic Tarps
- 12 PCB Labels 6" x 6"
- 1 Roll Brown Paper Towels
- 1 Roll $\frac{1}{2}$ " Masking Tape
- 50' Yellow Rope
- 1 1-Gallon Can of Kerosene Solvent
- 1 55-Gallon Oil Drum

PROTECTIVE GEAR:

- 2 Pair Protective Gloves
- 4 Pair "Tru Touch" Gloves
- 1 Half-Face Respirator & Cartridges
- 1 Face-Shield
- 2 Pair Plastic Boot-Covers
- 1 X-L Rainsuit
- 1 L Rainsuit
- 1 Pair Rubber Boots
- 1 Rubber Apron
- 1 First Aid Kit w/eyewash

RECEIVED
JAN 17 1980
FBI
LABORATORY
FEDERAL BUREAU OF INVESTIGATION
U.S. DEPARTMENT OF JUSTICE

